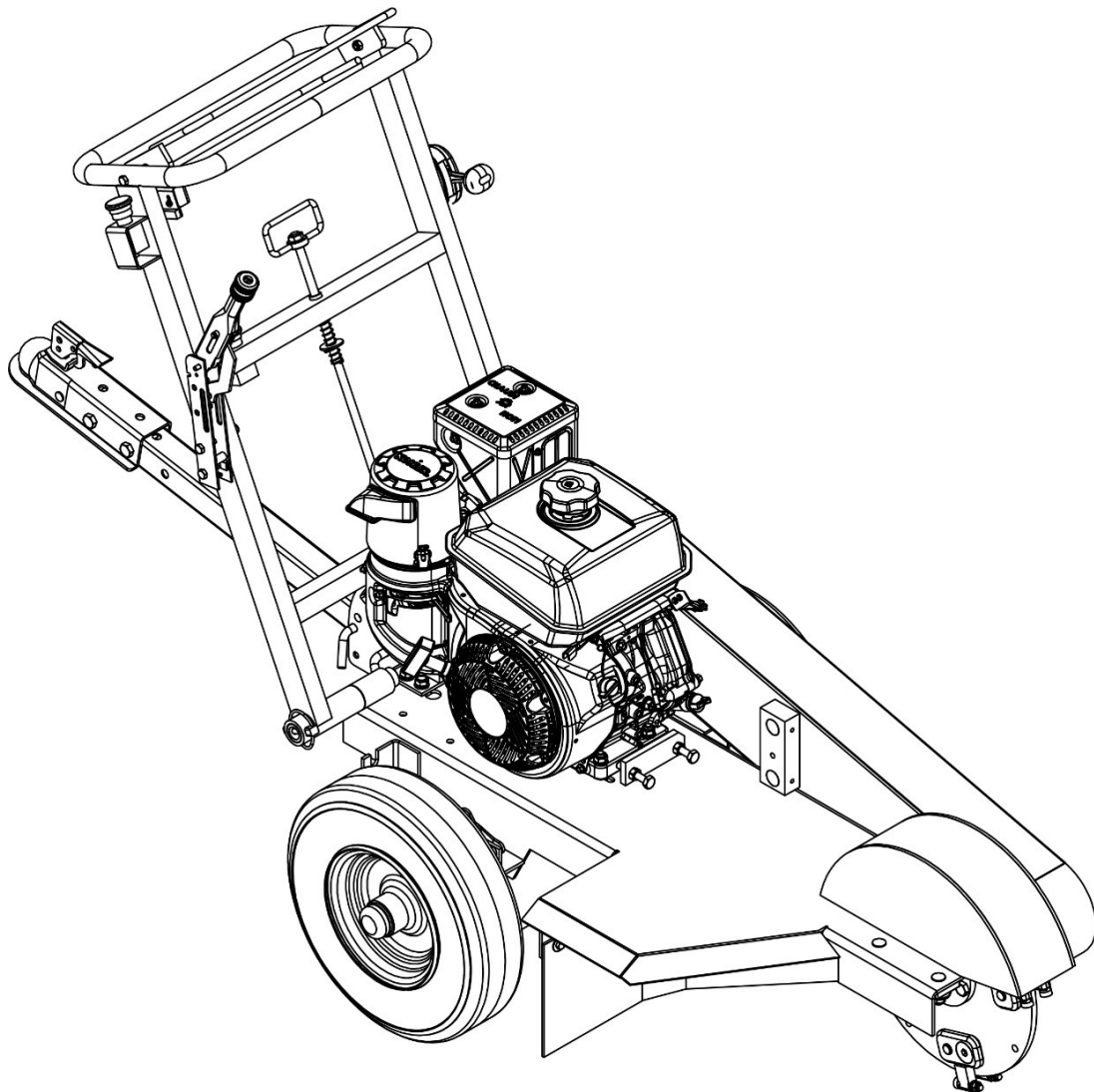


# Stump cutter W3000

## User Manual

Translation of original manual

Model: W3000



ALWAYS READ INSTRUCTIONS BEFORE USING THE MACHINE

# DK·TEC

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# Safety instructions

The purpose of this manual is to help you as a user to use the machine safely and to give you information on how to maintain it. Please read the entire manual thoroughly before using the machine for the first time. If, after reading the user manual, you are still unsure about the safety associated with the use of this machine, you should not use the machine. Please contact DK-TEC for more information. Read this manual thoroughly and make sure you understand it completely before using the machine or starting maintenance. If the user cannot read the manual, it is the owner's responsibility to explain the contents to the user.

## **IMPORTANT INFORMATION**

*Do not use this machine until the user manual has been thoroughly reviewed and understood. All maintenance work not described in this manual must be carried out by an authorized workshop.*

### **WARNING**

**Under no circumstances may the original design of the machine be modified. Such modifications may not only affect the performance and strength of this machine, but also expose users and bystanders to a safety hazard.**

**Unauthorized modifications to the design of the machine will void the warranty!**

### **WARNING**

**The stump grinder can be dangerous if not used correctly or without proper service and maintenance. In these cases, it can cause serious injury, in the worst case, death. That is therefore very important that the user reads and understands this manual before using the machine.**

## **The use of the stump cutter**

The stump cutter is used to remove tree stumps. By moving the knife in sweeping horizontal motions over the top and face of the stump, bite by bite, you can mill away the stump.

Follow all safety instructions. Failure to follow them may result in injury to the user or others. Accident prevention, general safety regulations, work safety rules and traffic legislation must always be followed. All users must be trained in the use of this machine. It is the owner's responsibility to ensure that all users are trained in the use of the machine.

Learn how to use the machine and its controls safely and learn all the safety labels. Only use the machine to remove tree stumps. It is not designed for anything else.

Check that the machine is ready for use before use.

Only use the machine in daylight or in well-lit areas. Keep the machine at a safe distance from holes or other irregularities in the ground surface. Note other possible hazards.

Only allow adults to operate the machine who are familiar with the use of the machine.

Never allow children or untrained persons to operate or service the machine. Local legislation applies here.

People and animals can distract you so that you lose control of the machine. Therefore, it is important to always concentrate and focus on the given task.

Never leave the machine with the engine running.

It must be ensured that there are other people nearby when you use the machine. So that you can call for help in the event of an emergency.

The machine has been tested and tested, only with the equipment that was originally sold with the machine.

**WARNING**

The engine can get very hot. To avoid being burned, it is important that you switch off the engine and wait until all moving parts have cooled down before touching the engine.

If you are exposed to vibrations over a long period of time, it can cause damage to the blood circulation or nerve pathways, especially in people with poor blood circulation. Contact your doctor if you experience symptoms that could be caused by prolonged exposure to vibrations. Typical symptoms include numbness, pain, muscle weakness, change in skin color, or an uncomfortable tremor. These symptoms typically occur in the fingers, hands or wrists.

**IMPORTANT INFORMATION**

*Never use a stump grinder that is damaged or incorrectly adjusted and never use the stump grinder if any components are missing. Check that the blade head stops rotating when you slow down the engine. If you find yourself in a situation where you are not sure what to do, always seek expert advice help. Do not try to solve the problem yourself if you are not qualified to do so.*

*Clear the work area of foreign objects before starting work.*

*Use approved safety equipment*

## Personal equipment

Use appropriate equipment.

It must be ensured that clothes, hair and jewelery etc. cannot be caught in the moving parts of the machine. Use a safety helmet with a visor, safety gloves with a good grip and safety clothing, as well as leg protection. Never use the machine with bare feet. You should always use safety boots with non-slip soles and steel toe protection.

Use a helmet with a full-face visor.

Contact DK-TEC to choose the right safety equipment.

Before using the stump cutter, it will in many cases be necessary to clear the area with a chainsaw. It is therefore a good idea to use personal safety equipment that meets the requirements for working with stump grinders and chainsaws.

The main difference is that you should wear safety glasses when using the stump grinder. The wire mesh visor provides sufficient protection when using a chainsaw, but when using a stump grinder, we recommend using both a visor for face protection and safety glasses. The alternative can be to use a face shield, but it scratches more easily.

Also use approved hearing protection when the machine is running.

Always use approved safety equipment when using the machine. Safety equipment cannot eliminate the risk of accidents, but by wearing the correct equipment, you will significantly reduce the risk of accidents.

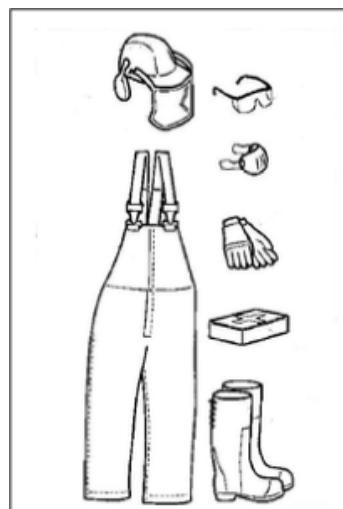
The following personal equipment is required:

Safety helmet (hard helmet) Hearing protection

Face shield Safety glasses

Respiratory protection Safety gloves

First aid kit Safety boots



It must be ensured that there is always a first aid kit nearby when the machine is used.

It must be ensured that no one, apart from the user, is near the machine when it is started and when working. It must be ensured that all animals and people maintain a safe distance from the machine.

Clear the area of foreign bodies, such as stones, toys, wire etc. which could be caught in the machine's rotating blades and thrown backwards.

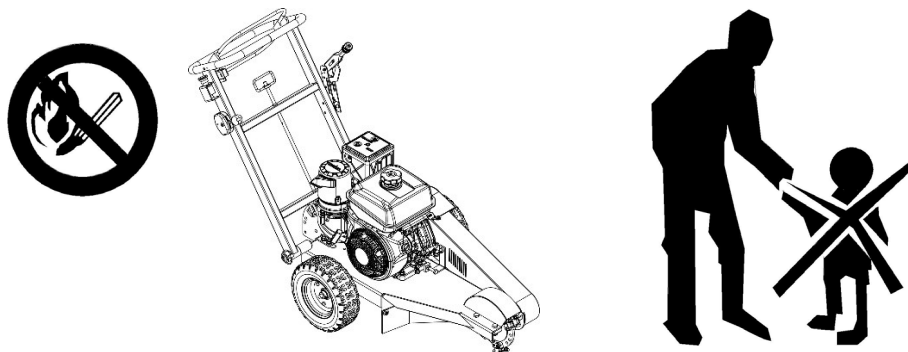
Find and locate all fixed objects such as sprinkler systems, poles, faucets, etc.

Always call the appropriate authorities to mark telephone cables, electric cables, etc. that can lay in the surface to be treated. Always drive around these while milling. Never drive into foreign objects on purpose.

Check the deadman's grip and that all screens are fitted and working as intended. Do not use the machine if it is not working properly.

## Children

- Serious accidents can occur if children are not supervised around the machine.
- Keep children away from this machine.
- Keep children away from the work area and under the close supervision of another adult
- Never allow children to operate the machine
- Pay particular attention when working near corners, bushes, trees or other objects that may block your view



# Specifications

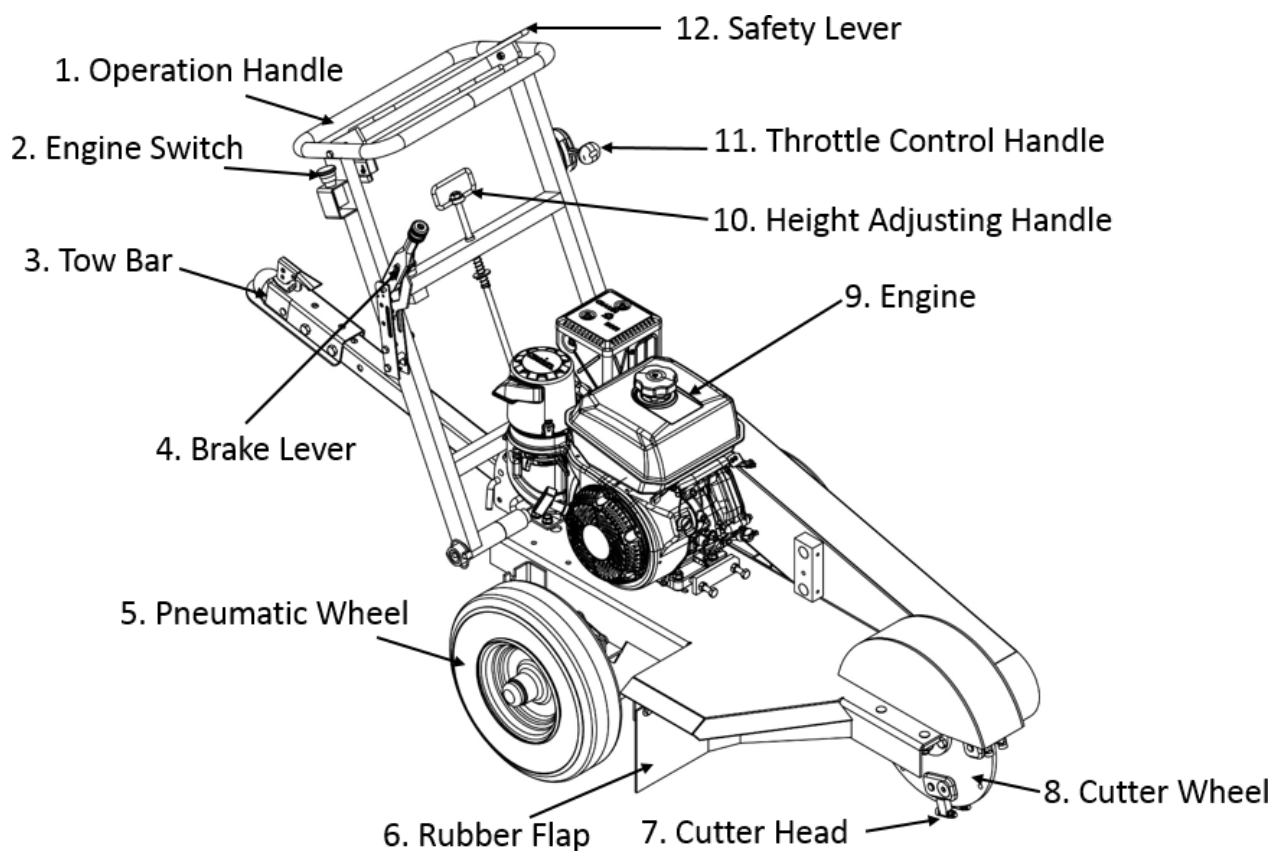
## *XZ0300 Commercial Pro*

<b>Engine</b>	420CC
<b>Fuel type</b>	Petrol
<b>Grinding teeth</b>	8 pcs
<b>Cutting head size</b>	Ø350mm Diameter x 10mm thickness
<b>Cutting capacity</b>	16" below ground, 20" above ground
<b>Drive</b>	Clutch and belt
<b>Drawbar</b>	Yes
<b>Wheel</b>	16" pneumatic wheels
<b>Overall dimensions</b>	1720x815x1245mm
<b>Weight</b>	135kg
<b>Motor oil</b>	SAE30

**Included with the machine:**

Hearing Protection  
Safety Glasses Manual

## MAIN COMPONENTS IDENTIFICATION



1. Operating handle. For operating the machine. The height of the handle can be adjusted by pulling the height adjustment handle.
2. Motor switch. It is a button for starting the engine (see details in CONTROLS SECTION).
3. Trailer hitch. Can be moved by garden tractor, ATV etc. (15-20 km/h)
4. Brake arm. Pull up to lock the right wheel. Be sure to lock the wheel during operation and storage.
5. Pneumatic wheel.
6. Rubber flap. Block dirt from grinding.
7. Cutting head. Each cutting head can be used in 3 different positions to extend the life of the blade threefold and easy to change.
8. Cutting wheel.
9. Engine. See the engine manual for detailed starting and operation.
10. Height-adjusting handle. Pull the ring to adjust the height to a suitable operating height.
11. Throttle. The handle controls the speed of the motor and blade wheel.
12. Safety handle. The safety handle must be held against the handle during operation. If you release the lever, the engine stops.



# Control handle

## Refueling

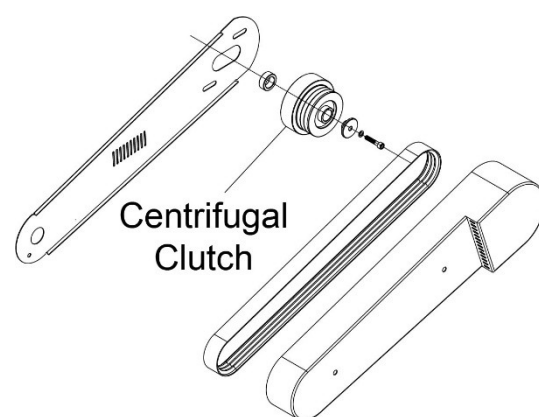
- Read the safety instructions before refueling. Keep fuel and fuel tank clean. Avoid filling the machine with dirty fuel. It must be ensured that the tank cover is sufficiently tightened and the gasket is not damaged, especially before washing the machine.
- Do not fill the fuel tank completely, leave room for the fuel to expand as it heats up.

## WARNING

Gasoline is highly flammable. Use caution and fill the tank outdoors.

## Centrifugal coupling

- The engine is equipped with a centrifugal clutch, which is mounted on the crankshaft. When the engine speed increases, the blade rotor is automatically engaged. The centrifugal clutch is maintenance-free and it is not possible for the user to make adjustments.



## Dead man's button

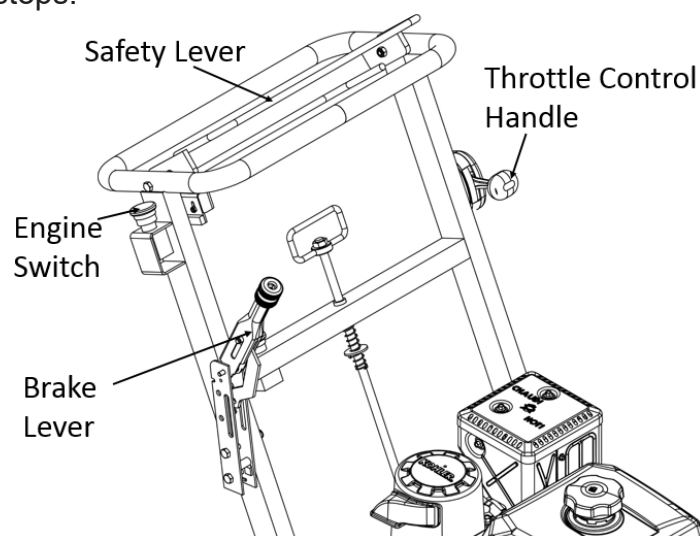
The handle must be held against the bracket for the motor to run. If you release the grip, the ignition system switches off and the engine stops.

## WARNING

Do not tie the handle to the hanger. It is made this way for your own safety.

## Brake

The brake lever on the right handle assembly is designed to lock the right wheel when pulled up. The brake must always be activated during operation of the stump grinder and storage. Turn the adjusting screw on the upper head of the brake arm to adjust the tightness of the brake.



## WARNING

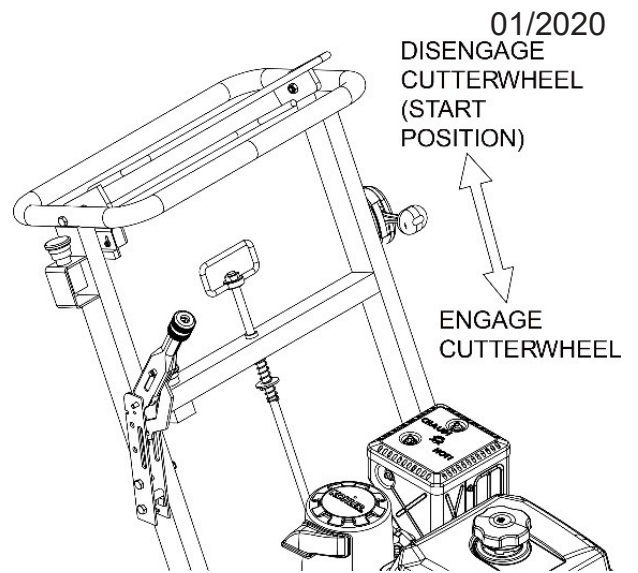
Never use the machine with a defective brake.

## Throttle

The throttle controls engine speed and cutting wheel speed.

By pulling the lever upwards, the engine idles and acts as the starting position.

By pushing the handle backwards, the engine speed increases, the drive of the centrifugal clutch automatically engages the cutting wheel.



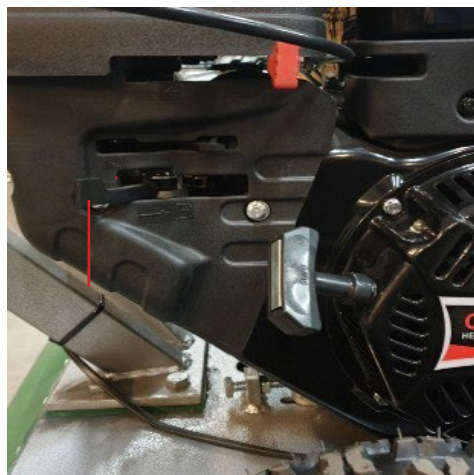
## Fuel system

### WARNING

Gasoline or gasoline vapors are toxic and extremely flammable. Be careful when handling gasoline as it can cause serious injury or fire.

- Only store petrol in approved cans.
- Never remove the fuel tank cap or add fuel with the engine running.
- Always stop the engine when refueling.
- Do not smoke when refueling and do not pour gasoline near sparks or open flames.
- Never fill the fuel tank indoors.
- The machine must be moved at least 10 meters away from the place where refueling took place before starting the machine.
- Close the fuel tap when the machine is to be stored or transported.
- If a leak occurs in the fuel system, the engine must not be started until the problem is resolved.
- Check the amount of fuel in the tank before use. Leave enough room for the fuel to expand due to heat from the engine so it doesn't overflow.
- Avoid overfilling. If you spill fuel on the machine, it must be wiped up. Wait for it to evaporate before starting the engine again. If you spill petrol on your clothes, they should be changed before using the machine.

OFF  
Petrol tap



WED

# Operation

## Preparation

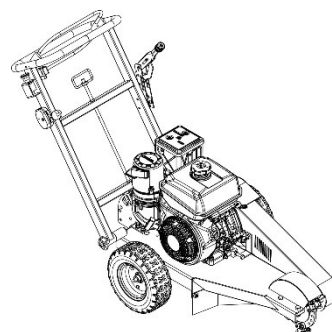
- Do not use this machine on hills that incline more than 10 degrees.
- Do not use this machine if you are tired, if you have consumed alcohol, or if you have taken other drugs or medications that may affect your vision, judgment, or coordination.
- Never use this machine indoors or in areas with insufficient ventilation.
- It must be ensured that you have sufficient footing when the machine is used, but especially when there are hills. Walk, don't run!
- Never work on wet grass with poor footing as this can cause you to fall.
- Keep hands and feet away from moving parts.
- Never use your feet or other body parts to put more pressure on the stump grinder.
- Smoking, open flames or sparks in the work area are strictly prohibited. Gasoline is extremely flammable and careless handling can cause serious injury or fire.
- Never use the machine with a defective exhaust.
- A very hot and dry climate can put the user of the stump grinder at risk of burns.
- Stop and check the machine if you have run over or hit a foreign object. If necessary, repairs are carried out before work is resumed.
- Regardless, you should always park the machine on level ground. Apply the parking brake, stop the engine and wait until all moving parts have stopped before leaving the machine.



Flying objects

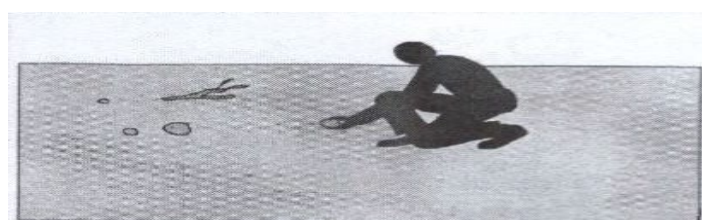


Rotating blades



## Before starting work

Dig away the soil around the stump and remove any stones that are near the tree stump that could get in the way of your work. Check that the ground is free of foreign objects such as electrical cables, fence wire, etc.



Saw the stump as low as possible with a chainsaw.

Check that the clutch is working correctly.  
Check that the frame is correctly aligned. Tighten up screws and nuts.

**Important information**

*Clear the work area of foreign objects before starting work.*

*Change the engine oil after 10 hours of use.*

*Check that the bolts and nuts are correctly tightened. After 10 hours of use, they must be tightened.*

*When the motor is operating without the blades rotating, it must be moved away from the work area to prevent the frames from burning off.*

*Check the fuel tank carefully before and after use. It must be ensured that there is enough fuel for the given task.*

**Start of the stump cutter****WARNING**

READ your Engine Instruction Manual thoroughly before starting and operating the engine.

**WARNING**

Remain in the OPERATOR POSITION while operating the controls. Never leave the machine unattended.

1. Place the machine in position with the cutting blade near the front edge of the stump.
2. Press the motor switch down on the right hand grip assembly.
3. Start the engine using the engine jump lead or the electric start button (see the engine manual for detailed starting instructions)
4. Hold the safety handle and release the motor switch
5. Push the handle assembly down to get the blade wheel off the ground.
6. Push the throttle down to accelerate the cutting wheel and start stump milling.

**WARNING**

**The safety handle must be held against the handle during operation. If you release the safety lever, the ignition system will short out and the engine will stop immediately.**

**WARNING**

**A rotating cutting blade is very DANGEROUS! Stay in the operating position and make sure the cutting wheel comes to a complete stop before doing anything else.**

**WARNING**

**Be sure to lift the brake lever up to lock the wheel before stump milling.**

**Stop the engine**

While keeping the blade off the ground, release the safety handle. Wait until the blade stops completely. Lower the blade so it rests against the ground.

Make sure the brake is set before leaving the controls, especially if you are on an incline.

Turn the engine switch to the off position.

Allow the engine to cool for at least 5 minutes before releasing the brake and moving for storage or transport. A hot engine can be a fire hazard.

**WARNING**

**Wait until all moving parts have come to a complete stop before performing maintenance on the machine. Turn off the engine and remove the ignition cable from the spark plug.**

**Moving/transportation**

- To turn and control the machine, the handle must be pressed down and the machine can then be turned on the rear wheels.
- Turn off the engine and allow it to cool for at least two minutes before transporting.
- Be careful and use safe lifting and moving technique when loading/unloading the machine.
- We recommend two people on transport tasks.
- Activate the parking brake during transport.
- The correct chains and straps must be used. It must be ensured that the local traffic legislation is observed when transporting the machine.

## Procedure for milling down stumps

### WARNING



Never leave the working position with bladed rotary. Keep all people and animals at a distance when the blade rotor is running.

### WARNING



Danger of flying debris

Rocks and debris can cause serious personal injury or property damage.

Debris can fly at high speed in all directions out of the chute. Loose objects such as stones and branches can in the worst case hit the operator or spectators.

### 1. Set / activate the brake.

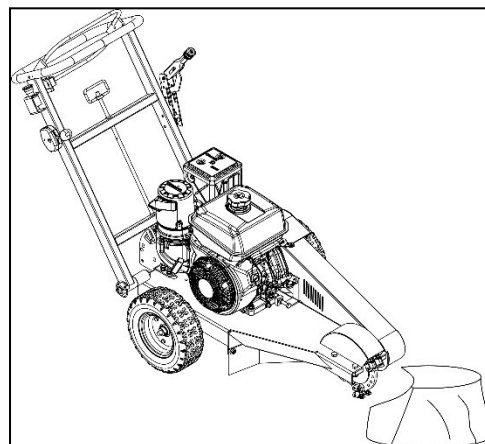
Turn the machine towards the side of the stump and then lower it approx. 1/2" to 1" in the front top corner of the stump. Slowly rotate the cutting blade back and forth, lower the cutting blade approx. 1/2" to 1" before each sweep until you have removed the stump.

Raise the cutter until the center of the cutter blade is just above the top of the stump.

When the cutting blade is cut out to one side, the machine is guided horizontally by releasing the reset of the brake. Move the machine forward to engage the cutting blade in the stubble so that as it sweeps across the stubble, it removes 1/2" to 1" of stubble with each sweep. Sweep the cutting blade across the stump and cut away 1/2" to 1" of stump. Advance the cutting blade 1/2" to 1" and sweep it again across the stump in the opposite direction.

Continue to sweep the cutter left and right across the stump, advancing it before each sweep, cutting 1/2" to 1" deep into the stump with each sweep.

Cut complete stump flush with the ground, then go back and cut any additional depth if desired.



### ACCUMULATION OF CHIPS

When milling larger stumps, wood shavings can start to collect under the wheels.

Release the brake and pull the machine towards you so that the "chip pile" is directly under the cutting wheel. Lower the cutting wheel onto the "chip pile", material is thus discharged from the machine area. Stop the machine when you are finished.

Pull the machine away from the stump and rake wood shavings away from the stump.

### WARNING



**On larger stumps, DO NOT allow grinding wheels to fall into the stump hole. If a gap is in the way of your progress, fill it with wood shavings or change position.**

**STOP the engine and release the brake before leaving the driving position. KEEP BRAKE BUSY except when changing locations.**

**Tips**

**To make operation easier, mill the stump down to ground level.**

**WARNING**

Rotating knife blades are very dangerous. Stay at the operator's station and make sure the blade rotor comes to a complete stop before doing anything else.

2. Place the stump cutter in position with the blade rotor near the front top edge of the stump. Activate the brake.  
Move the throttle up to the engaged position.  
Complete the stump milling by repeating step 10 over and over until the entire stump is milled to the desired depth.  
Stop the machine.

**Normal shutdown procedure**

- Hand throttle

Put the hand throttle in the slow disengage position. If the engine has been running at full throttle, let it cool down for approx. 30 seconds to 1 minute at low rpm. Do not let the front of the machine touch the ground until you are sure the blade rotor has stopped turning.

**WARNING**

A rotating blade is very dangerous! Stay at the operator's station and ensure that the blade rotor has completely stopped before doing anything else.

- Brake

Activate the brake by pulling the lever.

- Fuel tap

Close the fuel cock. Turn the handle all the way to the left. Let go of the dead man button. Wait until the blade rotor has stopped. It must be ensured that the blades have stopped completely and are resting on the ground before doing anything else.

**When you have finished using the stump grinder and it has cooled down, you should:**

- Cool the engine before storage.
- Clean the stump grinder
- Inspect for worn or damaged parts.
- Choose covered storage location.
- Avoid accidental start.
- Plan to exercise/start the engine at least once a month unless the stump grinder is ready for long-term storage.



# Maintenance

**Before working on the machine, pull the ignition cable from the spark plug.**



## Maintenance

- Never make adjustments to the machine with the engine running.
- Switch off the engine and wait until all moving parts have stopped before adjusting, performing maintenance on the machine and when cleaning the machine.
- Before working on the machine, pull the ignition cable from the spark plug.



- Make sure all parts of the machine are in working order. It must be ensured that all bolts, nuts and the like are correctly tightened. Replace worn or damaged safety labels.
- Be careful when checking the working blades. Use gloves when carrying out maintenance work.
- Never allow persons not trained in the use of this machine to maintain or service it.
- Always park the machine on a level surface before performing any maintenance or adjustments.
- Do not disassemble the engine. This may void your engine warranty. Contact DK-TEC if you have any questions regarding service or warranty on the machine. Always follow all maintenance instructions.
- The carburettor adjustments must not be adjusted so that the engine will run at too high revs. If the engine runs at too high a speed, you risk damage to the machine components.
- Safety equipment must not be modified. Regularly check that the safety equipment on the machine is working correctly. The machine must not be used with defective or detached safety equipment.
- The exhaust is designed to keep the sound level at an approved level and to direct the exhaust away from the user. Exhaust gases from the engine are extremely hot and may contain sparks that can burn the user.
- Never use the machine with a defective exhaust.
- Reduce the risk of fire by removing grass, leaves and other debris from the machine.



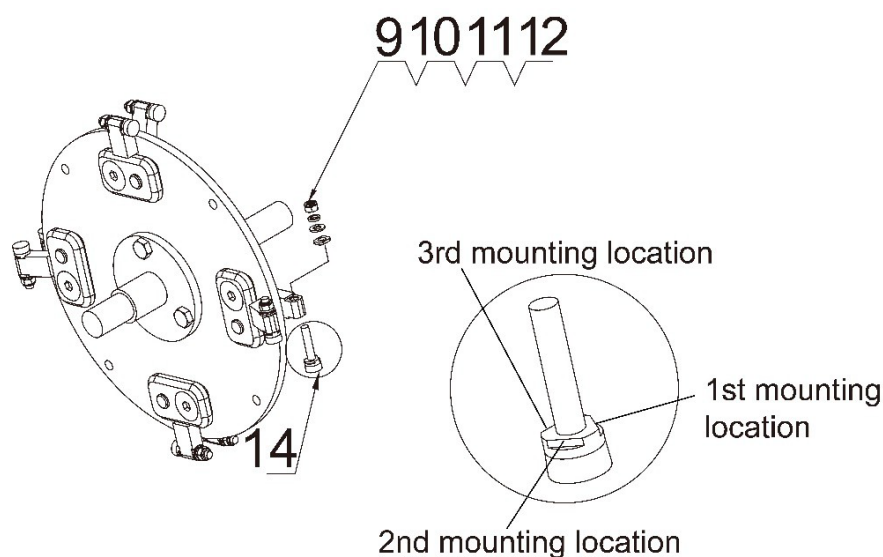
**WARNING**

Wait until all moving parts have come to a complete stop before performing maintenance on the machine. Turn off the engine and remove the ignition cable from the spark plug.

**Cutting head**

Each cutting head can be used in 3 different positions to extend the life of the knife. Check the cutting head after each use. If the head is worn, change the mowing head mounting position.

Among the most critical elements on the stump grinder are the knife blades. They are therefore most exposed to damage and wear. During the work of milling stumps, they not only come into contact with wood, but also soil and stones that lie around the stump. Over time, they also come into contact with large stones or buried waste. The wear of the blade head can lower the efficiency and performance of the stump cutter. Therefore, it is very important to regularly check the condition of all knife blades. They should be replaced if they are damaged or worn. Read all of the following instructions before beginning blade replacement.

**WARNING**

Before replacing the blade head, be sure to stop the engine and wait until the blade wheel stops turning. Failure to comply MAY result in serious personal injury.

**Replacement of knife blades**

1. Clean all soil from the blade and mounting flanges.
2. Remove all bolts holding the blade. Be careful not to drop the knife section when they come loose.
3. Check each section for cracks. Replace the blade if it is cracked.
4. When replacing the blade sections, make sure the blade section is aligned with the blade

rotation.

5. Loosen the No. 9 gasket, No. 10 flat washer Ø8, lock washer Ø8 and No. 12 nylon lock nut M8 on the cutting wheel as shown in the drawing below. Rotate the cutting head at the other mounting location. Tighten with tool
6. If the cutting head is finished worn or damaged, replace it with a new cutting head.

#### WARNING



Be sure to tighten the bolts and nuts on the cutting head.

### Brake adjustment

For fine adjustment of the brake, the small screw on the side of the brake lever must be loosened. Turning clockwise tightens the brake and turning counter-clockwise loosens the brake. When activating the brake, the wheel must be blocked, then tighten the screw again. For hook adjustment, adjust the nuts on the brake cable.

### The two minute rule

The machine must be tipped backwards or on its side to make it easier to clean and service it, but no more than 2 minutes at a time! If the machine is kept in this position for too long, the engine may be damaged by petrol running into the oil tank. Should this occur, change the oil and perform an additional oil change after the engine has been turned a few turns with the starter handle before resuming operation.

### Cleaning and washing

Regular cleaning of the machine will increase its lifespan. Make it a habit to clean the machine immediately after use and before the dirt gets stuck. Before starting up, check that the tank cap is correctly fitted to avoid water getting into the tank. Use caution when using the pressure washer to wash the machine, as warning signs, instruction signs and the engine may be damaged.

Do not exceed 70 bar for water pressure when cleaning.

Lubricate the machine after cleaning, this is especially important if the machine is to be stored for a long time.

### Lubrication of bearings

The knife rotor bearings must be lubricated after every 10 hours of use. Lubricate the two grease nipples on each side of the blade rotor.

#### NOTE

Press the grease in slowly to avoid damage to the seals. Use extreme caution when using a high pressure or high volume grease gun.

## The strap

The stubble machine's drive system is composed of a 9J jointed narrow V-belt. The stubble machine's V-belt tension must be checked daily.

- The stump cutter's V-belt tension should be checked daily.
- Before checking or adjusting the belts, the stump grinder must be switched off. It must be ensured that all
- moving parts are completely stopped. Extreme caution must be used to avoid death or serious injury. Keep your distance from belts, pulleys, clutch and blade rotor when they are moving.
- To adjust the belt tension, loosen the 2 bolts behind the clutch. In addition, loosen the 4 bolts that hold the motor. Turn the square adjustment bolt on the frame clockwise to stem the frames and counterclockwise to loosen the frames. It must be ensured that all the bolts are tightened after the adjustment.
- To check the tension of the frame, you must be able to press the frames down 6-10 mm from the original position with your fingers.
- In order to extend the life of the frame, it is important that the correct tension is maintained, as loose frames can cause the frames to rub on the blade rotor and subsequently to the frames wearing out. A belt that is too tight can cause the bearing shaft to break.

*Never make adjustments to the machine with the engine running.*

*Turn off the engine and wait until all moving parts have stopped before adjusting, performing maintenance on the machine as well as when the machine is cleaned.*

## In general

Make sure all parts of the machine are in working order. It must be ensured that all bolts, nuts and the like are correctly tightened. Replace worn or damaged safety labels.

Be careful when checking the working blades. Use gloves when carrying out maintenance work.

Never allow persons not trained in the use of this machine to maintain or service it.

Always park the machine on a level surface before performing maintenance or making adjustments.

Do not disassemble the engine. This may void your engine warranty. Contact DK-TEC if you have any questions regarding service or warranty on the machine. Always follow all maintenance instructions. The carburettor adjustments must not be adjusted so that the engine will run at too high revs. If the engine runs at too high a speed, you risk damage to the machine components.

Safety equipment must not be modified. Regularly check that the safety equipment on the machine is working correctly. The machine must not be used with defective or detached safety equipment.

The exhaust is designed to keep the sound level at an approved level and to direct the exhaust away from the user.

Exhaust gases from the engine are extremely hot and may contain sparks that can burn the user.

Never use the machine with a defective exhaust.

Reduce the risk of fire by removing grass, leaves and other debris from the machine.

## Service

Always use original spare parts from DK-TEC.

- Paint the places where the paint has been scraped off to prevent rust.
- Check the machine for worn or damaged parts and retighten any nuts and bolts that may be loose.
- Change the engine oil and dispose of the old oil properly.
- Open the fuel tank, empty it and empty the carburettor.
- Close the fuel tank.
- Remove the spark plug and pour approx. 1 teaspoon of engine oil into the cylinder. Turn the engine a few times so that the oil is evenly distributed on the cylinder. Then refit the spark plug. Place the engine in the compression tank, where the triangular mark on the starter fiance is placed on the top hole in the starter. Note, the compression tank occurs every other lap.
- Lubricate all grease nipples, joints and cables
- Store the machine in a clean, dry area and cover it for additional protection.
- Spray a thin layer of oil on the blade motor to prevent them from rusting

### After the first 10 hours of use

1. Change the engine oil.
2. Check that the clutch is working correctly.
3. Check that the frame is correctly aligned.
4. Tighten screws and nuts.

# Storage

## Storage

Allow the engine to cool before storing the machine. Never store the machine near an open flame. Store the machine with the fuel tap in the closed position.

Store the machine and fuel in such a way that there is no risk of fuel escaping and vapors coming into contact with flames or sparks from electrical equipment.

Store the machine in a locked area where children and adults cannot come into contact with it.

## Winter storage

- When the season is over, the machine should be prepared for storage (if it is not to be used for more than 1 month). Fuel that is allowed to sit for long periods of time (1 month or more) can leave a sticky residue in the tank that can clog the carburetor and cause the engine to not run properly.
- Gasoline additive for storage, is a good solution to counteract this. If aspen gasoline is used, then additives are not necessary, as this type of gasoline is stable. However, if you were to use this type of petrol, you should not switch between regular and this type of petrol, as the rubber parts in the carburetor may harden. Add the additive in the tank, or in the storage canister and then drive the machine for at least 10 minutes, so that it is ensured that the additive reaches the carburetor. Do not empty the fuel tank and carburetor if you have got additive in it.

## WARNING

Never store the engine with fuel in the tank indoors or in a poorly ventilated room where fuel vapors can come into contact with open flames, sparks or the like.

Handle the fuel with care as it is highly flammable. Careless handling can cause serious injury and accidents to both people and property. Drain the contents of the fuel tank into an approved container outdoors and far away from open flames. Never use gasoline to clean the machine. Use a general engine cleaner, some machine cleaner and warm water instead.

## When you have finished using the stump grinder and it has cooled down, you should:

- Cool the engine before storage.
- Clean the stump grinder
- Inspect for worn or damaged parts.
- Choose covered storage location.
- Avoid accidental start.
- Plan to exercise the engine at least once a month unless the stump grinder is ready for long-term storage.

## TROUBLE SHOOTING

Symptom	Cause	Action
The engine will not start	Fuel valve closed.	Open the fuel valve.
● User error	Choke valve open.	Close the shock with cold engine.
●	Engine switch in OFF position.	Turn engine switch to ON
● Fuel system	Fuel tank empty.	Fill with fuel.
	carburetor	
	Machine stored without observing proper procedure from chapter "Storage/Winter storage".	Clean tank, sludge reservoir and empty carburetor. Fill the tank with fresh fuel.
	Contamination, water or ice in fuel system.	Clean tank, sludge reservoir, fuel lines and carburetor fill the tank with fresh fuel.
	Carburetor problems.	
● Spark plugs	Wrong spark plug type.	Replace the spark plug.
	Buildup on electrodes.	Check electrode gap and clean or replace spark plug.
	Short circuit.	Replace the spark plug.
	Gasoline or oil on the spark plug.	Clean the spark plug. Air the engine out. Start with full Throttle.
● No spark after service	Faulty engine switch, cable or ignition.	Contact an authorized service workshop.
● Low compression authorized	Serious interior engine damage or faulty valves.	Contact a service workshop.
Engine is gutless or uneven		
● Air filter	Clogged air filter.	Clean or replace the air filter.
Fuel system	Machine stored without observing proper procedure from chapter "Storage/Winter storage".	Clean tank, sludge reservoir and empty carburetor. Fill the tank with proper fuel.

(Blue exhaust) (Voluminous blue-white exhaust)	Tank filled with 2-cycle mixed oil. Tank filled with diesel.	Clean tank, sludge reservoir and empty carburetor. Fill the tank with proper fuel. Open choke valve. Clean or replace the air filter.
(Black exhaust)	Choke left on. Clogged air filter. Carburetor problems.	Contact an authorized service Workshop.
● Ignition system	Wrong spark plug type. Buildup on electrodes. Short circuit. Faulty ignition unit.	Replace the spark plug. Check electrode gap and Clean or replace spark plug. Contact an authorized service Workshop.
<b>Problem</b>		
<b>Possible solutions</b>		
Belt coming off.	1. Pulleys not aligned. 2. Belt tension is insufficient. Adjust belt tension.	
Belt engages late Or tie.	1. Tighten the belt as described in the operator's manual. 2. Reduce cutting depth.	
Belt not staying tight after adjustment.	1. Check for damage on the axle, pulley or key. Make sure that the set screws are properly tightened. 2. Replace damaged parts.	
The cutting wheel does not rotate	1. Engine speed is insufficient to activate the centrifugal clutch. 2. Belt tension is insufficient. Adjust belt tension. 3. Clutch is worn - replace shoes and springs, and/or clutch bearings.	
The cutting wheel continues to rotate.	1. Check that the throttle is disconnected. 2. Check for damage on the throttle cable. 3. Check that the throttle cable is properly mounted on the throttle valve. 4. The engine speed is not under 1000 rpm, which is required to disengage the centrifugal clutch. 5. Inspect springs on clutch shoes. If tension on clutch shoes is not enough to pull shoes back, replace spring and clutch shoes.	
The parking brake is slipping	1. Adjust the brake tension in the manner described in the operator's manual. 2. Check for damage on the brake rod or lever. 3. Check for wear on the brake pads. Replace as necessary.	

## TECHNICAL DATA

<b>Stump grinder specifications</b>	
Brake	Disk-Lever activated
Drive	Direct
Belt	9J
Clutch	Centrifugal clutch
Cutters	8 cutters with tungsten carbide tips
Cutting depth	Approximately 16"
Package size (L×W×h)	129×84×101.5 cm
NW	135kg