# **Operator's manual Manual de instrucciones Instruções para o uso** Οδηγίες χρήσεως

# **K6500** Ring

Please read the operator's manual carefully and make sure you understand the instructions before using the machine.

Lea detenidamente el manual de instrucciones y a segúrese de entender su contenido antes de utilizar la máquina.

Leia as instruções para o uso com toda a atenção e compreenda o seu conteúdo antes de fazer uso da máquina.

Δια βάστε προσεκτικά τις Οδηγίες χρήσεως και κατανοήστε το περε χίμενο πριν χρησιμοποιήσετε το μηχάνημα



**GB ES PT GR** 

## **KEYTO SYMBOLS**

## Symbols on the machine:

This manual is the International version used for all English speaking countries outside North America. If you operate in North America use the US-version.

WARNING! The machine can be a dangerous tool if used incorrectly or carelessly, which can cause serious or fatal injury to the operator or others.



Please read the operator's manual carefully and make sure you understand the instructions before using the machine.



Wear personal protective equipment. See instructions under the "Personal protective equipment" heading.



Ensure the blades are not cracked or damaged in any other way.



Do not use circular saw blades



WARNING! Dust forms when cutting, which can cause injuries if inhaled. Use an approved breathing mask. Always provide for good ventilation.



WARNING! Sparks from the blade can cause fire in combustible materials such as: petrol (gas), wood, clothes, dry grass etc.



WARNING! Kickbacks can be sudden, rapid and violent and can cause life threatening injuries. Read and understand the instructions in the manual before using the machine.



This product is in accordance with applicable EC directives.



Environmental marking. Symbols on the product or its packaging indicate that this product cannot be handled as domestic waste. It must instead be submitted to an appropriate recycling station for the recovery of electrical and electronic equipment.



By ensuring that this product is taken care of correctly, you can help to counteract the potential negative impact on the environment and people that can otherwise result through the incorrect waste management of this product.

For more detailed infor mation about recycling this product, contact your municipality, your domestic waste service or the shop from where you purchased the product.

Other symbol s/decals on the machine refer to special certification requirements for certain markets.

# **Explanation of warning levels**

The warnings are graded in three levels.

#### WARNING!



WARNING! Used if the re is a risk of serious injury or death for the operator or damage to the surroundings if the instructions in the manual are not followed.

#### **CAUTION!**



CAUTION! Used if there is a risk of injury to the operator or damage to the surroundings if the instructions in the manual are not followed.

#### NOTICE!

NOTICE! Used if there is a risk of damage to materials or the machine if the instructions in the manual are not followed.

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## **PRESENTATION**

# **Dear Customer,**

Thank you for choosing a Husqvarna product!

It is our wish that you will be satisfied with your product and that it will be your companion for a long time. A purchase of one of our products gives you access to professional help with repairs and services. If the retailer who sells your machine is not one of our authorised dealers, ask him for the address of your nearest service workshop.

This operator's manual is a valuable document. Make sure it is always at hand at the work place. By following its content (using, service, maintenance etc) the life span and the second-hand value of the machine can be extended. If you will sell this machine, make sure that the buyer will get the operator's manual.

## More than 300 years of innovation

Hus qvarna AB is a Swedish company based on a tradition that dates back to 1689, when the Swedish King Charles XI ordered the construction of a factory for production of muskets. At that time, the foundation was already laid for the engineering skills behind the development of some of the world's leading products in areas such as hunting weapons, bicycles, motorcycles, domestic appliances, sewing machines and outdoor products.

Hus qvarna is the global leader in outdoor power products for forestry, park maintenance and lawn and garden care, as well as cutting equipment and diamond tools for the construction and stone industries.

## Owner responsibility

It is the owner's/employer's responsibility that the operator has sufficient knowledge about how to use the machine safely. Supervisors and operators must have read and understood the Operator's Manual. They must be aware of:

- The machine's safety instructions.
- The machine's range of applications and limitations.
- How the machine is to be used and maintained.

National legislation could regulate the use of this machine. Find out what legislation is applicable in the place where you work before you start using the machine.

#### The manufacturer's reservation

Subsequent to publishing this manual Husqvarna may issue additional information for safe operation of this product. It is the owner's duty to keep up with the safest methods of operation.

Hus quarna AB has a policy of continuous product development and therefore reserves the right to modify the design and appearance of products without prior notice.

For customer information and assistance, contact us at our website: www.husqvarnacp.com

## Design and features

This is a product included in a range of high frequency powered equipment for cutting, drilling and wall sawing. They are designed to cuthard materials like masonry and reinforced concrete and should not be used for any purpose not described in this manual.

Values such as high performance, reliability, innovative technology, advanced technical solutions and environmental considerations distinguish Husqvarna's products. Safe operation of this product requires the operator to read this manual carefully. Ask your dealer or Husqvarna should you need more information.

Some of the unique features of your product are described below.

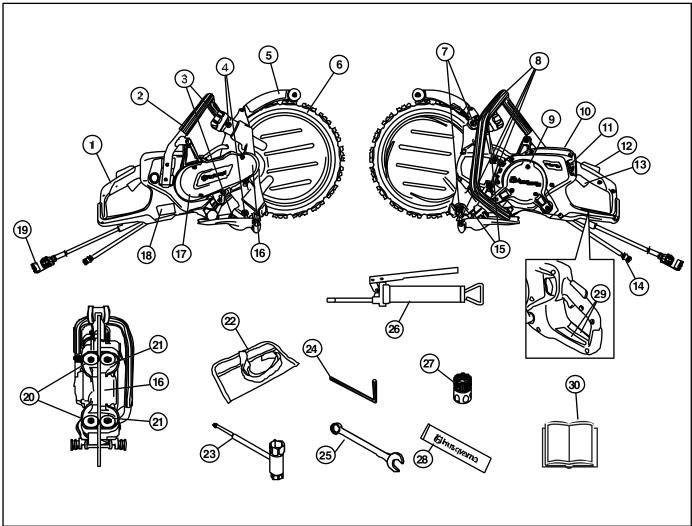
## **K6500 Ring**

- The unit gives high power output and can use both 1and 3-phase input, which makes it flexible and usable.
- Elgard<sup>™</sup> is an electronic overload protection that protects the motor. The protection spares the machine and extends its service life. With the help of Elgard<sup>™</sup>, the machine indicates when it approaches maximum load

The load indicator shows the user that the correct load level is being used for the cutting process and gives a warning if the system is about to overheat.

- Efficient vibration dampers spare arms and hands.
- The design is lightweight, compact and ergonomic which makes the unit easy to transport.
- Doubled cutting depth of 270 mm (10.6 inches) compared to a traditional blades. Cuts can be made efficiently from one side.
- The machine is fitted with DEX (Dust Extinguisher), a low flushing water kit that offers maximum dust suppression.

# WHAT IS WHAT?



What is what on the power cutter - K6500 Ring?

- 1 Rear handle
- 2 Front handle
- 3 Control for the guide rollers
- 4 Grease nipples
- 5 Blade guard/spray guard
- 6 Diamond blade
- 7 Adjuster screws
- 8 Screws, support roller cover
- 9 Engine cover
- 10 Display
- 11 Water tap with flow limiter
- 12 Throttle lockout
- 13 Throttle trigger
- 14 Water connector, in
- 15 Locking nuts for the support roller arms

- 16 Drive wheel
- 17 Belt guard
- 18 Rating plate
- 19 Connector
- 20 Guide rollers
- 21 Support rollers
- 22 Toolbag
- 23 Combination spanner
- 24 6 mm hex key
- 25 Open-ended spanner, 19 mm
- 26 Greasegun
- 27 Water connector, GARDENA®
- 28 Bearing grease
- 29 Information and warning decal
- 30 Operator's manual

## MACHINE'S SAFETY EQUIPMENT

## General



WARNING! Never use a machine that has faulty safety equipment! If your machine fails any checks contact your service agent to get it repaired.

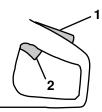
To prevent accidental starting, the steps described in this chapter must be performed with the motor off and the power cable removed from the socket, if not otherwise stated.

This section describes the machine's safety equipment, its purpose, and how checks and maintenance should be carried out to ensure that it operates correctly.

# Throttle lockout and ON/OFF valve for the water

The throttle lockout is designed to prevent accidental activation of the throttle and regulate the water on/off valve.

When you press the lock (1) into the handle (i.e. when you grasp the handle) it opens the water valve and releases the throttle control (2).



When the grip on the handle is released, both the throttle and throttle lockout return to their original positions. In this position, the machine will stop and the throttle will be locked, while the water valve returns to closed position.



#### Checking the throttle lockout

 Make sure the power trigger is locked when the power trigger lock is in its original position.



 Press the throttle lockout and make sure it returns to its original position when you release it.

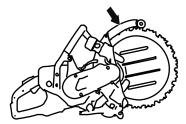


 Check that the power trigger and the power trigger lockout move freely and that the return spring works properly.



## Blade guard

This guard is fitted above the blade and is designed to prevent parts of the blade or cutting fragments from being thrown towards the user.



Che cking the blade guard



WARNING! Always check that the guard is correctly fitted before starting the machine. Also check that the blade is fitted correctly and is not damaged in anyway. A damaged blade can cause personal injuries. See instructions in the section "Assembling and adjustments".

 Check that the guard is complete and without any cracks or deformations.

## **MACHINE'S SAFETY EQUIPMENT**

## Vibration damping system



WARNING! Overexposure to vibration can lead to circulatory damage or nerve damage in people who have impaired circulation. Contact your doctor if you experience symptoms of overexposure to vibration. Such symptoms include numbness, loss of feeling, tingling, pricking, pain, loss of strength, changes in skin colour or condition. These symptoms normally appear in the fingers, hands or wrists. These symptoms may be increased in cold temperatures.

- Your machine is equipped with a vibration damping system that is designed to minimize vibration and make operation easier.
- The machine's vibration damping system reduces the transfer of vibration between the engine unit/cutting equipment and the machine's handle unit.



Checking the vibration damping system



WARNING! The motor must be off and the connector unplugged from the power unit.

- Check the vibration damping units regularly for cracks or deformation. Replace them if damaged.
- Check that the vibration damping element is securely attached between the engine unit and handle unit.

## **BLADES**

#### General



WARNING! Blades can break and cause serious injuries to the user.

The blade manufacturer issues warnings and recommendations for the use and proper care of the blade. Those warnings come with the blade.

A blade should be checked before it is assembled on the saw and frequently during use. Look for cracks, lost segments (diamond blades) or pieces broken off. Do not use a damaged blade.



WARNING! Never use a blade with a lower speed rating than that of the machine. Only use ring cutter blades designed by Husqvarna for use on this machine.

## **Diamond blades**

#### General



WARNING! Never use a blade for any other materials than that it was intended for.

Never use a diamond blade to cut plastic material. The heat produced during cutting may melt the plastic and it can stick to the cutting blade and cause a kickback.

Diamond blades become very hot when used. An overheated blade is a result of improper use, and may cause deformation of the blade, resulting in damage and injuries.

Cutting metal generates sparks that may cause fire. Do not use the machine near ignitable substances or gases.

 Diamond blades consist of a steel core provided with segments that contain industrial diamonds.

#### Diamond blades for different materials

- Diamond blades are ideal for masonry and reinforced concrete. Ask your dealer for help in choosing the right product.
- Diamond blades are available in several hardness classes.
- A "soft" diamond blade has a relatively short service life and large cutting capacity. It is used for hard materials such as granite and hard concrete. A "hard" diamond blade has a longer service life and reduced cutting capacity, and should be used for soft materials such as brick and a sphalt.

### Sharpening diamond blades

- · Always use a sharp diamond blade.
- Diamond blades can become dull when the wrong feeding pressure is used or when cutting certain materials such as heavily reinforced concrete. Working with a blunt diamond blade causes overheating, which can result in the diamond segments coming loose.
- Sharpen the blade by cutting in a soft material such as sandstone or brick.

## Diamond blades and cooling



WARNING! Ring blades used on this saw must be used continuously with water to prevent overheating that can cause the ring blade to break resulting in injury and damage.

Water  $\infty$  oling must always be used. When wet cutting, the blade is  $\infty$ ntinuously cooled to prevent overheating.

Water cooling cools the blade and increases its service life while also reducing the formation of dust.

#### Vibrations on diamond blades

The blade can become out of round and vibrate if a too high feed pressure is used.

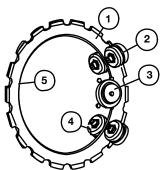
A lower feed pressure can stop the vibration. Otherwise replace the blade.

## **BLADES**

## **Drive**

On account of the machine's unique design the driving power is not transferred at the centre of the blade. The flanges on the two guide rollers run in the blade's groove. Springs on the guide rollers press out the rollers, which in turn press the V-shaped edge on the inside diameter of the blade against the V-shaped groove in the drive wheel. The drive wheel is fitted on an axle which is driven by the engine via a drive belt.

This allows a total cutting depth of 270 mm (10,6 inches) with a 350 mm (14 inches) diamond blade.



- 1 Blade
- 2 Support rollers
- 3 Drive wheel
- 4 Guide rollers
- 5 V-shaped edge

NOTICE! The rollers etting should be checked twice during the life of the diamond blade, once afterfitting the blade and when the blade is semi worn.

## Transport and storage

- Make sure the machine is secured and that the blade are properly protected during the transport and storage of the machine.
- Before use inspect blade for transport or storage damage.
- Store the blade in a dry place.

## **ASSEMBLING AND ADJUSTMENTS**

## General



WARNING! Always pull out the plug from the outlet socket before cleaning, maintenance or assembly. Unexpected blade movements can cause serious in juries.

Hus qvarna's diamond blades are approved for hand-held power cutters.

We offers a number of blades for different materials in its range. Check with your Husqvarna dealer to see which blades are best suited for your usage.



# Fitting the blade



WARNING! Do not put new diamond segments on a used blade core (retipping). The blade core is designed to handle the stressit is exposed to during the use of the original segment. If the blade is re-tipped the additional stress on the blade core might it to break or crack and cause serious injury to the operator. For this reason Husqvarna does not approve ring cutting blades that have been re-tipped. Contact your Hus qvama dealer for in structions.



WARNING! Check that the blade is not damaged before fitting it on the machine. Damaged blades can disintegrate and cause serious personal injury.

Wipe off any dirt from the surface of the blade.



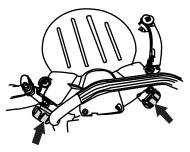
Loosen the locking nuts on the support roller cover.



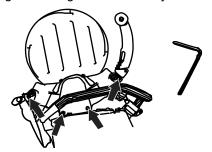
· Unscrew the adjuster screws a few turns.



Loosen the knob to offload the springs.

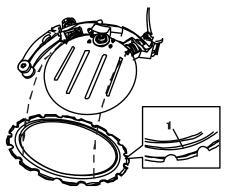


Remove the four screws holding the support roller guard using a 6 mm hex key and lift off the cover.



Fit the blade.

The blade has a groove (1) on one side that acts a the guide groove for the support rollers. Ensure that the V-shaped edge of the blade enters the drive wheel and that the blade's guide groove fits in the guide rollers. See instructions in the section "Blades".

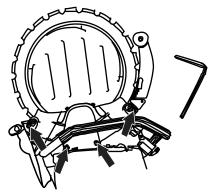


 Press in the guide roller if necessary, so that it climbs into the groove on the blade.



## **ASSEMBLING AND ADJUSTMENTS**

 Fit the support roller guard and ensure that the flanges on the guide rollers still enter the blade's grooves correctly.



- Now tight en the four screws fully.
- Rotate the blade and make sure that the support rollers are not clamped against the blade.



CAUTION! The machine should be upright. If the machine lies on its side the weight of the blade makes it difficult to make a correct adjustment. Incorrect adjustment can result in damage to the blade. If the blade rotates slowly or stops, stop cutting immediately and trouble shoot.

 Adjust the adjusters crews so that the support rollers make contact against the blade.



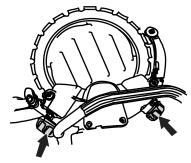
Adjust soyou can easily stop the support rollers using your thumb when the blade is rotated. The support rollers should only follow the blade occasionally.



· Tighten the locking nuts on the support roller guard.



- Rotate the blade and make sure you can still hold the rollers with your thumb when the blade is rotated.
- Tighten the knobs fully and the machine is ready to use.



# Connect the cooling water

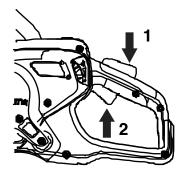
Connect the water hose to the water supply. The water flow is activated by opening the check valve. Minimum water flow: 4 I/min Note that the machine's hose nipple is fitted with a filter.



# Water supply

When you press in the switch lock (A) the water valve opens.

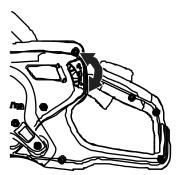
The water valve remains open and the throttle lockout (1) remains depressed as long as the throttle (2) is held pressed in.



# **ASSEMBLING AND ADJUSTMENTS**

# Water dosage

The water flow can be adjusted during operations with your thumb.



Ample water flow is needed for maximal blade life.

NOTICE! The water pressure and water flow is extremely important for the blade's cooling and service life. Inadequate cooling shortens the life of the guide rollers, drive wheel and the blade.

# Protective equipment

#### General

Do not use the machine unless you are able to call for help in the event of an accident.

## Personal protective equipment

You must use approved personal protective equipment whenever you use the machine. Personal protective equipment cannot eliminate the risk of injury but it will reduce the degree of injury if an accident does happen. Ask your dealer for help in choosing the right equipment.



WARNING! The use of products such as cutters, grinders, drills, that sand or form material can generate dust and vapours which may contain hazardous chemicals. Check the nature of the material you intend to process and use an appropriate breathing mask.

Long-term exposure to noise can result in permanent hearing impairment. So always use approved hearing protection. Listen out for warning signals or shouts when you are wearing hearing protection. Always remove your hearing protection as so on as the engine stops.

#### Always wear:

- Approved protective helmet
- Hearing protection
- Approved eye protection. If you use a face shield then you must also wear approved protective goggles.
   Approved protective goggles must comply with standard ANSI Z87.1 in the USA or EN 166 in EU countries. Visors must comply with standard EN 1731.
- Breathing mask
- Heavy-duty, firm grip gloves.
- Tight-fitting, heavy-duty and comfortable clothing that permits full freedom of movement. Cutting generates sparks that can ignite clothing. Husqvarna recommends that you wear flame-retardant cotton or heavy denim. Do not wear clothing made of material such as nylon, polyester or rayon. If ignited such material can melt and cling to the skin. Do not wear shorts
- Boots with steel toe-caps and non-slip sole.

## Other protective equipment



CAUTION! Sparks may appear and start a fire when you work with the machine. Always keep fire fighting equipment handy.

- Fire Extinguisher
- First aid kit

## General safety warnings

This section describes basic safety directions for using the machine. This information is never a substitute for professional skills and experience. If you get into a situation where you feel unsafe, stop and seek expert advice. Contact your dealer, service agent or an experienced user. Do not attempt any task that you feel unsure of!

- Pleaseread the operator's manual carefully and make sure you understand the instructions before using the machine. It is recommended that first time operators also obtain practical intsuction before using the machine.
- Keep in mind that it is you, the operator that is responsible for not exposing people or their property to accidents or hazards.
- The machine must be kept clean. Signs and stickers must be fully legible.



WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### Work are a safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while ope rating a power tool. Distractions can cause you to lose control.
- Do not use the machine in bad weather, such as dense fog, rain, strong wind, intense cold, etc.
   Working in bad weather is tiring and can lead to dangerous conditions, e.g. slipper y surfaces.
- Never start to work with the machine before the working area is clear and you have a firm foothold. Look out for any obstacles with unexpected movement. Ensure when cutting that no material can become loose and fall, causing operating injury. Take great care when working on sloping ground.



WARNING! The safety distance for the power cutter is 15 metres (50 foot). You are responsible to ensure that animals and onlookers are not within the working area. Do not start cutting until the working area is clear and you are standing firmly.

## **Electrical safety**

- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool.
   Keep cord away from heat, oil, sharpedges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- Check that the cord and extension cord are intact and in good condition. Never use the machine if the cord is damaged, hand it in to an authorized service workshop for repair. An undersized cable means a risk of reduced machine capacity and overheating.
- The machine should be connected to an earthed outlet socket. Check that the mains voltage corresponds with that stated on the rating plate on the machine's power pack.
- Ensure the cord is behind you when you start to use the machine so that the cord will not be damaged.



WARNING! The machine (Great Britain 110V) is not equipped with a ground fault circuit interrupter. The machine must always be used with an isolating transformer for protection in case an electrical fault should occur.



WARNING! Do not pressure wash the machine, as water can enter the electrical system or the engine and cause damage to the machine or short circuit.

## Personal safety

- Stay a lert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the OFF-position before connecting to power

- source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose dothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.
- Remain at a distance from the blades when the engine is running.

#### Power tool use and care

- Donot force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained us ers.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.



WARNING! Under no circumstances should you modify the original design of the machine without approval from the manufacturer. Always use original spare parts. Unauthorized modifications and/or accessories may lead to serious injury or death to the user or others.

- Make suret hat no pipes or electrical cables are routed in the working area or in the material to be cut.
- Always check and mark out where gas pipes are routed. Cutting close to gas pipes always entails danger. Make sure that sparks are not caused when cutting in view of the risk of explosion. Remain concentrated and focused on the task. Carelessness can result in serious personal injury or death.
- The guard for the cutting equipment must always be on when the machine is running.

#### Service

 Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

## Always use common sense

It is not possible to cover every conceivable situation you can face. Always exercise care and use your common sense. If you get into a situation where you feel unsafe, stop and seek expert advice. Contact your dealer, service agent or an experienced user. Do not attempt any task that you feel unsure of!



WARNING! The machine can be a dangerous tool if used incorrectly or carelessly, which can cause serious or fatal injury to the operator or others.

Never allow children or other persons not trained in the use of the machine to use or service it.

Never allow anyone else to use the machine without first ensuring that they have read and understood the contents of the operator's manual.

Never use a machine that is faulty. Carry out the safety checks, maintenance and service instructions described in this manual. Some maintenance and service measures must be carried out by trained and qualified specialists. See in structions under the Maintenance heading.

## Basic working techniques



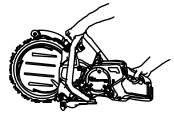
WARNING! Do not pull the power cutter to one side, this can cause the blade to jam or break resulting in injury to people.

Under all circumstances avoid grinding using the side of the blade; it will almost certainly be damaged, break and can cause immense damage. Only use the cutting section.

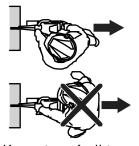
Cutting plastics with a diamond blade can cause kickback when the material melts due to the heat produced when cutting and sticks to the blade. Never cut plastic materials with a diamond blade!

Cutting metal generates sparks that may cause fire. Do not use the machine near ignitable substances or gases.

- The machine is designed and intended for cutting with diamond blades intended for ring cutters. The machines hall not be used with any other type of blade, or for any other type of cutting.
- Check that the blade is fitted correctly and does not show signs of damage. See the instructions in the sections "Blades" and "Assembly and settings".
- Check that the correct blade is used for the application in question. See instructions in the section "Blades".
- Never cut asbestos materials!
- Hold the saw with both hands; keep a firm grip with thumbs and fingers encircling the handles. The right hand should be on the rear handle and the left hand on the front handle. All operators, weather right or left handed shall use this grip. Never operate a power cutter holding it with only one hand.

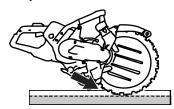


• Stand parallel to the blade. Avoid standing straight behind. In the event of a kickback the saw will move in the plane of the blade.



 Keep at a safe distance from the cutting equipment when it is rotating.

- Never leave the machine unsupervised with the motor running.
- Never move the machine when the cutting equipment is rotating.
- Never lay the power tool down until the accessory has come to complete stop.
- The guard for the cutting equipment should be adjusted so that the rear section is flush with the work piece. Spatter and sparks from the material being cut are then collected up by the guard and led away from the user. The guards for the cutting equipment must always be fitted when the machine is running.



- Never use the kickback zone of the blade for cutting.
   See instructions under the heading "Kickback".
- · Keep a good balance and a firm foothold.
- · Never cut above shoulder height.
- Never cut from a ladder. Use a platform or scaffold if the cut is above shoulder height.





- Do not overreach
- Stand at a comfortable distance from the work piece.
- Always ensure you have a safe and stable working position.
- Check that the blade is not in contact with anything when the machine is started.
- Apply the cutting blade gently with high rotating speed (full throttle) Maintain full speed until cutting is complete.
- Let the machine work without forcing or pressing the blade.

 Feed the machine in line with the blade. Side pressure can destroy the blade and is extremely dangerous.

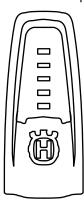


 Move the blades lowly backwards and forwards to give a small contact surface between the blade and material to be cut. This will mean the blade temperature is kept down resulting in efficient cutting.



## Gradual start and overload protection

The machine is equipped with electronically controlled gradual start and overload protection.



In di cation on the machine	Cause	Possible action
	Indicates the tool is connected to the power unit and is ready for use.	
1 green lamp:	Power output is less than 70% of the maximum available output when in use.	
2 green lamps:	Power output is between 70% and 90% of the maximum available output when in use.	
	Optimum cutting speed.	
3 green lamps:	Power output is more than 90% of the maximum available output	
3 green lamps and 1 yellow:	Tool under load so power output drops.	Reduce the load to attain optimum cutting speed.
3 green lamps, 1 yellow: and 1 red:	The system is becoming overheated.	Reduce the load or increase motor and power unit cooling.
	The system is overheated and can stop at any time.*	Reduce the load or increase motor and power unit cooling.
All lamps on or flashing:	Power reduction:	Motor cooling can be improved by increasing theamount of coolant or using colder water.
3	Automatic reduction in maximum available output. Power reduction attempts to avoid overheating and automatic shut-down of the system.	Power unit cooling can be improved by changing air filter or by placing the power unit in a location with cooler ambient temperature.

 $<sup>^{\</sup>star}$  If the system has shut down due to overheating, the lamps will continue flashing until the system has cooled down and is ready to be restarted.

The electronics cut the current immediately if the blade jams.

## Man agin g d ust

The machine is fitted with DEX (Dust Extinguisher), alow flushing water kit that offers maximum dust suppression. See instructions in the section "Blades".

Adjust water flow using the tap to bind the cutting dust. The volume of water required varies depending on the type of job at hand.

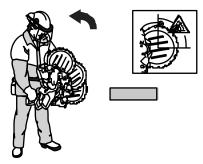
If water hoses loosen from their supply sources, this indicates that the machine is connected to a water pressure that is too high. See instructions under the "Technical data" heading for recommended water pressure.

#### **Kickback**



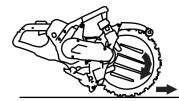
WARNING! Kickbacks are sudden and can be very violent. The power cutter can be thrown up and back towards the user in a rotating motion causing serious or even fatal injury. It is vital to understand what causes kickback and how to avoid it before using the machine.

Kickback is the sudden upward motion that can occur if the blade is pinched or stalled in the kickback zone. Most kickbacks are small and pose little danger. However a kickback can also be very violent and throw the power cutter up and back towards the user in a rotating motion causing serious or even fatal injury.



#### Reactive force

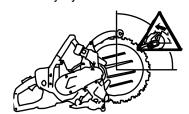
A reactive force is always present when cutting. The force pulls the machine in the opposite direction to the blade rotation. Most of the time this force is insignificant. If the blade is pinched or stalled the reactive force will be strong and you might not be able to control the power cutter.



Never move the machine when the cutting equipment is rotating. Gyroscopic forces can obstruct the intended movement

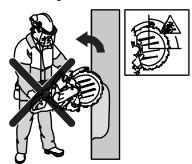
#### Kickback zone

Never use the kickback zone of the blade **for cutting**. If the blade is pinched or stalled in the kickback zone, the reactive force will push the power cutter up and back towards the user in a rotating motion causing serious or even fatal injury.



#### Climbing kickback

If the kickback zone is used for cutting the reactive force drives the blade to climb up in the cut. Do not use the kickback zone. Use the lower quadrant of the blade to avoid climbing kickback.



#### Pinching kickback

Pinching is when the cut doses and pinches the blade. If the blade is pinched or stalled the reactive force will be strong and you might not be able to control the power cutter.

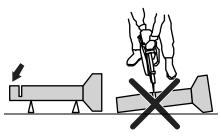


If the blade ispinched or stalled in the kickback zone, the reactive force will push the power cutter up and back towards the user in a rotating motion causing serious or even fatal injury. Be alert for potential movement of the work piece. If the work piece is not properly supported and shifts as you cut, it might pinch the blade and cause a kick back.

#### **Pipe cutting**

Special care should be taken when cutting in pipes. If the pipe is not properly supported and the cut kept open through out the cutting, the blade might be pinched in the kickback zone and cause a severe kickback. Be especially aler twhen cutting a pipe with a belled end or a pipe in a trench that, if not properly supported, may sag and pinch the blade.

Before starting the cut the pipe must be secure so it does not move or roll during cutting.



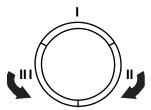
If the pipe is allowed to sag and dose the cut, the blade will be pinched in the kick back zone and a severe kick back might develop.

If the pipe is properly supported the end of the pipe will move downward, the cut will open and no pinching will occur.



#### Proper sequence cutting a pipe

- 1 First cut section I.
- 2 Move to side II and cut from section I to bottom of the pipe.
- 3 Move to side III and cut the remaining part of the pipe ending at the bottom.

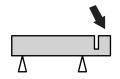


#### How to aviod kickback

Avoiding kickback is simple.

The work piece must always be supported so that the cut stays open when cutting through. When the cut opens there is no kickback. If the cut closes and pinches the blade there is always a risk of kickback.



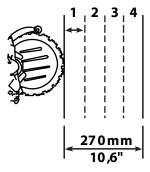


Take care when inserting the blade in an existing cut.

Be alert to movement of the work piece or anything else that can occur, which could cause the cut to close and pinch the blade.

### Cutting depth

K6500 Ring can cut up to a depth of 270 mm (10,6 in ches). Making a guide cut of 50-70 mm (2-3 inches) first, gives you better control of the machine. This means the water disc can penetrate into the workpiece and help control the machine. Attempting to saw the entire depth in one run takes longer. Working with several runs, 3 to 4 when the cut is 270 mm (10,6 inches) in depth, is much quicker.



### Large work

Cuts exceeding 1 m - secure a batten along the line to be cut. The batten acts as a guide. Use this guide to make a marking cut along the entire length of the cut, 50-70 mm (2-3 inches) in depth. Re move the guides once the marking cut has been made.



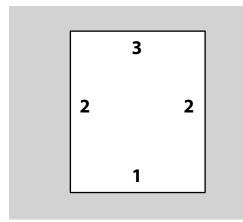
#### Small work

First make a shallow marking cut, max 50-70 mm (2-3 inches) in depth. Now make the final cut.

## **Cutting holes**

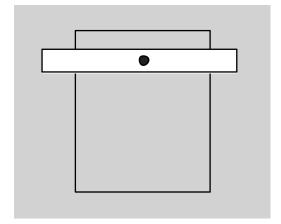
NOTICE! If the upper horizontal cut is made before the lower horizontal cut, the work piece will fall on the blade and jam it.

• First make the lower horizontal cut. Now make the two vertical cuts. Finish with the upper horizontal cut.



Remember to divide the blocks up into manageable pieces so that they can be transported and lifted safely.

 When cutting out large holes it is important that the piece to be cut out is braced so that it cannot fall against the operator.



## Transport and storage

- Secure the equipment during transportation in order to avoid transport damage and accidents.
- For transport and storage of Blades, see the section "Blades".
- Store the equipmentinal lockable areasothat it is out of reach of children and unauthorized persons.

## STARTING AND STOPPING

## **Before starting**



WARNING! Note the following before starting:

Please read the operator's manual carefully and make sure you understand the instructions before using the machine.

Wear personal protective equipment. See under heading "Personal protective equipment".

Check that the mains voltage corresponds with that stated on the rating plate on the machine's power pack.

The machine's power unit must be connected to an earthed outlet socket.

Make sure you have a secure footing and that the blade cannot touch anything.

Keep people and animals well away from the working area.

- Connect the machine to the power unit.
- Connect the power unit to a grounded outlet
- Turn on the power unit switch.



WARNING! The machine (Great Britain 120V) is not equipped with a ground fault circuit interrupter. The machine must always be used with an isolating transformer for protection in case an electrical fault should occur.

#### Water connector

CAUTION! Never operate the machine without coolant as this will cause overheating.

· Connect the water hose to the water supply.

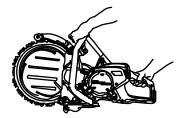


 When the throttle lockout (1) is depressed, the water valve will open.



## **Starting**

· Grip the rear handle with your right hand.



- Depress the throttle lockout and hold in the throttle.
- Runthe machine unloaded and in a safe manner for at least 30 seconds.

## Stopping



WARNING! The blade continues to rotate for up to 10 seconds after the motor has been turned off.

Stop the motor by releasing the throttle.



 The motor can also be stopped by pressing the emergency stop button or turning the switch to OFF (0) on the power unit.

#### Turn off the tool.

- Allow the blade to stop completely.
- Turn the switch to the OFF position (O) on the power pack.
- Turn off the tool.

#### General



WARNING! The user must only carry out the maintenance and service work described in this Operator's Manual. More extensive work must be carried out by an authorized service workshop.

Inspection and/or maintenance should be carried out with the motor switched off and the plug disconnected.

Wear personal protective equipment. See instructions under the "Personal protective equipment" heading.

The life span of the machine can be reduced and the risk of accidents can increase if machine maintenance is not carried out correctly and if service and/or repairs are not carried out professionally. If you need further information please contact your nearest service workshop.

Let your Husqvarna dealer regularly check the machine and make essential adjustments and repairs.

### Maintenance schedule

In the maintenance schedule you can see which parts of your machine that require maintenance, and with which intervals it should take place. The intervals are calculated based on daily use of the machine, and may differ depending on the rate of usage.

	Daily maintenance	Weekly main tenance/40 hours	Monthly maintenance
Cleaning	External cleaning		
	•		
	General inspection	Vibration damping system*	Drive wheel
	Water system	Drive belt	
	Throttle trigger*		
Functional inspection	Throttle lockout*		
	Blade guard*		
	Blade**		
	Support and guide rollers		

<sup>\*</sup>See instructions in the section "Machine's safety equipment".

# Cleaning

#### External cleaning

• Clean the machine daily by rinsing it with clean water after the work is finished.



WARNING! Do not use high-pressure washers to clean the machine.

<sup>\*\*</sup> See instructions in the section "Blades" and "Assembly and settings".

# **Functional inspection**

## General inspection



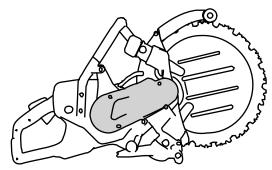
WARNING! Never use damaged cables. They can cause serious, even fatal, personal injuries.

- Check that the ord and extension cord are intact and in good condition. Never use the machine if the ord is damaged, hand it in to an authorized service workshop for repair.
- · Check that nuts and screws are tight.

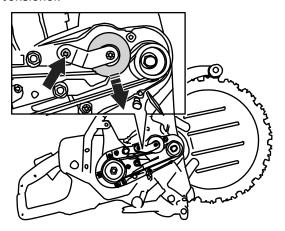
#### **Drive belt**

#### Tensioning the drive belt

- If the drive belt slips, it must be tensioned.
- A new drive belt should be retightened after about one hour's use.
- The drive belt is enclosed and well protected from dust and dirt.
- Dismantle the cover and loos en the belt tensioning screw.

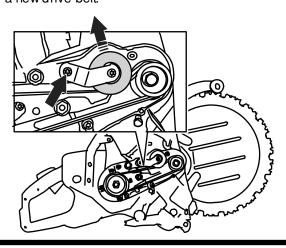


 Presson the belttensioner with your thumb to tension the belt. Now tighten the screw holding the belt tensioner.



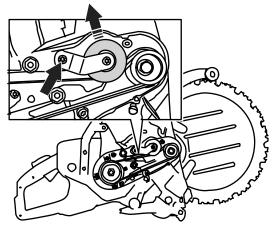
#### Replacing the drive belt

 Dismantle the cover and loosen the belt tensioning screw. Push back the belt tensioning roller and install a new drive belt.



NOTICE! Make sure that both belt pulleys are dean and undamaged before a new drive belt is fitted.

 Press on the belt tensioner with your thumb to tension the belt. Now tighten the screw holding the belt tensioner.

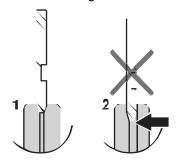


Fit the belt cover.

#### Drive wheel

As the blade is used the inside diameter and the groove in the drive wheel become worn.

- Check the drive gear for wear.
- 1) New
- 2) The drive wheel is worn when the blade edge touches the bottom of the groove. The blade will slip.

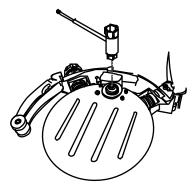


NOTICE! Replace the drive wheel when fitting a new blade. A worn drive wheel can result in the blade slipping and becoming damaged.

Inadequate water flow drastically short ensithe life of the drive wheel.

#### Replacing the drive wheel

- · Lock the axle using the locking button.
- · Loosen the centre screw and remove the washer.

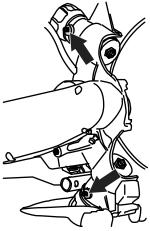


· You can now lift off the drive wheel.

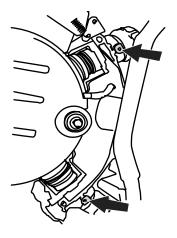
#### **Guide rollers**

#### Lubricating the guide rollers

· Connect the grease gun to the grease nipples.

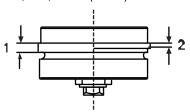


 Pump in grease until clean grease emerges from the overflow hole.

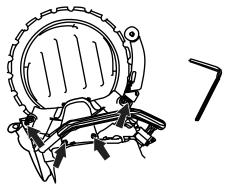


#### Replacing the support guide rollers

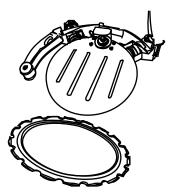
- Replace the guide rollers when half of the flange on the rollers is worn.
- 1) New, 3 mm (0.12")
- 2) Worn, ≤ 1,5 mm (0.06")



Remove the support roller cover.

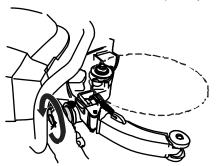


Lift off the blade.

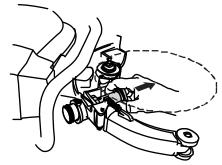


Unscrew the knob. First turn the knob a few turns until
you feel a resistance. The guide roller then follows the
knob out and stops when it feels a resistance.

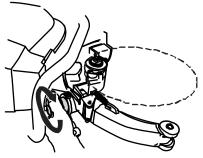
The guide roller is pressed into the knob. In order to lo osen the guide roller, you need to continue turning the knob until it loosens completely.



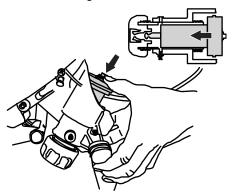
• The guide roller can now be pulled out of the chassis.



 Screwthe knob until it bottoms, and then loosen the knob 2 turns.



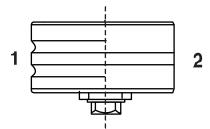
Insert the new guide roller in the chassis.



- Lubricate the guide rollers. See instructions under the heading "Lubricating the guide rollers".
- Fit the blade.
- As semble in the reverse order as set out for dismanting. See instructions in the section "Assembling and adjustments".

## Support rollers

- Replace the support rollers when the roller surface is flat, when the groove on the roller surface has worn away.
- 1) New
- 2) Worn



NOTICE! The support rollers do not drive the blade.

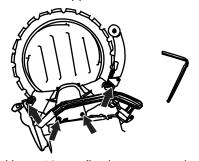
When worn rollers are replaced with new ones, you must adjust the rollers against the blade.

Incorrect adjustment can result in damage to the blade. See the instructions under the Assembly and Settings heading.

If the blade rotates slowly or stops, stop cutting immediately and trouble shoot.

#### Replacing the support rollers

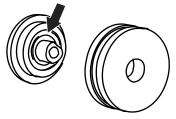
Remove the support roller cover.



 Use a 19 mm fixed spanner and a 13 mm combination spanner to replace the rollers.



 Lubricate using bearing grease inside the rollers before the new rollers are fitted.



# Reconstructing (re-tipping) the blade



WARNING! Do not put new diamond segments on a used blade core (retipping). The blade core is designed to handle the stress it is exposed to during the use of the original segment. If the blade is re-tipped the additional stress on the blade core might it to break or crack and cause serious injury to the operator. For this reason Husqvama does not approve ring cutting blades that have been re-tipped. Contact your Husqvarna dealer for instructions.

# **TROUBLESHOOTING**

# **Mechanics**

Symptom	Probable cause
	Roller knobs not tightened fully.
The blade does not rotate.	The blade not fitted on guide rollers correctly.
	Rollers tensioned too much.
	Roller knobs not tightened fully.
	Worn drive wheel.
The blade rotates too slowly.	The V-shaped inner diameter of the blade is worn.
	The springs on the guide rollers are weakened.
	Defective roller bearings.
	Roller setting too loose.
The blade jumps out of its position.	Worn guide rollers.
The bade jumps out of its position.	The blade not fitted on guide rollers correctly.
	Dama ged blade.
The blade warps.	Rollers tensioned too much.
me dade waips.	Blade overheating.
Segments break	Bent, twisted or badly maintained blade.
The blade cuts too slowly.	Wrong blade for the material in question.
The dade cats too slowly.	Check that the right amount of water reaches the blade.
	The guide rollers does not move in and out freely. A seized roller can not press the blade hard enough against the drive wheel.
The Wede cline	Worn drive wheel. Abrasive material and too little water when cutting increases the wear on the wheel.
The blade slips.	Worn guide roller flange. When more than half of the width of the flange is worn the blade slips.
	The blade's groove and inner edge areworn. Caused by inferior flushing of abrasive material and/or a worn drive wheel causing the blade to slip.

# **TECHNICAL DATA**

## **Technical data**

Tech ni cal data	K6500 Ring	
Motor		
Electric motor	HF High Frequency	
Max.speed of output shaft, rpm	9000	
3-phase operation, Motor output - max.kW	5,5	
1-phase operation, Motor output - max.kW	3	
Weight		
Machine with cable packadge, without blade, kg	13.1	
Water cooling		
Water cooling of blade	Yes	
Max.recommended waterpressure, bar	8	
Min. recommended water flow, I/min	4 at water temperature 15°C	
Connecting nipple Type "Gardena"		
Noise emissions (see note 1)	•	
Sound power level, measured dB (A)	110	
Sound power level, guaranteed dB(A)	111	
Sound levels (see note 2)		
Sound pressure level at the operators ear, dB(A)	99	
Equivalent vibration levels, a hveq (see note 3)		
Front handle, m/s <sup>2</sup>	2.4	
Rear handle, m/s <sup>2</sup>	1,5	

Note 1: Noise emissions in the environment measured as sound power (L<sub>WA</sub>) conforming to EN 60745-1.

Note 2: Noise pressure level according to EN 60745-1. Reported data for noise pressure level has a typical statistical dispersion (standard deviation) of 1.0 dB(A).

Note 3: Equivalent vibration level, according to EN 60745-2-22, is calculated as the time-weighted energy total for vibration levels under various working conditions. Reported data for vibration level has a typical statistical dispersion (standard deviation) of  $1,5 \text{ m/s}^2$ .

# Cutting equipment

Cutting blade, mm	350
Max. peripheral speed, m/s	55
Max. blade speed, rpm	3000
Max cutting depth, mm	270

## **TECHNICAL DATA**

# **EC Declaration of Conformity**

## (Applies to Europe only)

**Hus qvamaAB**, SE-561 82 Hus kvarna, Sweden, tel: +46-36-146500, declares under sole responsibility that the power cutter **Hus qvarna K6500 Rin g** dating from 2016 serial numbers and onward (the year is dearly stated on the type plate, followed by the serial number), complies with the requirements of the COUNCIL'S DIRECTIVE:

- of May 17, 2006 "relating to machinery" 2006/42/EC.
- of February 26, 2014 "relating to electromagnetic compatibility" 2014/30/EU.
- of February 26, 2014 "relating to electrical equipment designed for use within certain voltage limits" 2014/35/EU.
- of June 08, 2011 on the "restriction of use of certain hazardous substances" 2011/65/EU.

The following standards have been applied: EN ISO 12100:2010, EN 55014-12006, EN 55014-2/A1:2001, EN 61000-3-2:2006, EN 61000-3-3:2008, EN 60745-1:2009, EN 60745-2-22:2011.

Gothenburg, 30 March 2016

Joakim Ed

Global R&D Director

Construction Equipment Husqvarna AB

(Authorized representative for Husqvarna AB and responsible for technical documentation.)