

TECHNICAL DATA

Technical data

Engine	940 RING
Cylinder displacement, cm ³ /cu.in	93,6/5,7
Cylinder bore, mm/inch	56/2,2
Stroke, mm/inch	38/1,5
Idle speed, rpm	2700
Wide open throttle - no load, rpm	9300 (+/- 150)
Power, kW/hp @ rpm	4,8/6,5 @ 9000
Ignition system	
Manufacturer of ignition system	SEM
Type of ignition system	CD
Spark plug	NGK BPMR 7A
Electrode gap, mm	0,5
Fuel and lubrication system	
Manufacturer of carburettor	Walbro
Carburettor type	RWJ-7
Fuel tank capacity, litre / US fl.Oz	1,0/33,8
Water cooling	
Recommended water pressure, bar/PSI	1,5-10/22-150
Recommended water flow, litres/min / gal(US)/min	4/1
Weight	
Power cutter without fuel and cutting blade, kg/lb	13,8/30,4
Noise emissions (see note 1)	
Sound power level, measured dB(A)	114
Sound power level, guaranteed L _{WA} dB(A)	115
Sound levels (see note 2)	
Equivalent sound pressure level at the operator's ear, dB(A)	104
Equivalent vibration levels, a_{hveq} (see note 3)	
Front handle, m/s ²	2,7
Rear handle, m/s ²	3,4

Note 1: Noise emissions in the environment measured as sound power (L_{WA}) in conformity with EC directive 2000/14/EC. The difference between guaranteed and measured sound power is that the guaranteed sound power also includes dispersion in the measurement result and the variations between different machines of the same model according to Directive 2000/14/EC.

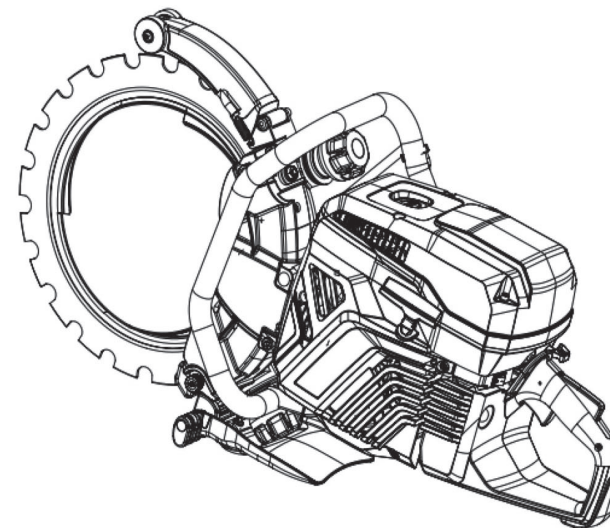
Note 2: Equivalent sound pressure level, according to EN ISO 19432-1, is calculated as the time-weighted energy total for different sound pressure levels under various working conditions. Reported data for equivalent sound pressure level for the machine has a typical statistical dispersion (standard deviation) of 1 dB(A).

Note 3: Equivalent vibration level, according to EN ISO 19432-1, is calculated as the time-weighted energy total for vibration levels under various working conditions. Reported data for equivalent vibration level has a typical statistical dispersion (standard deviation) of 1 m/s².

Cutting equipment

Ring cutting blade	Max cutting depth, mm/inch	Max. peripheral speed, m/s / ft/min	Max. speed of blade, rpm	Blade weight, kg/lb
14" (370 mm)	270/10,6	55/11000	2800	0,8/1,8

Comer®



Operator's manual

940 RING



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

KEY TO SYMBOLS

Manual version

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.

Symbols on the machine

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.

This product is in accordance with applicable EU directives.

WARNING! Dust forms when cutting, this can cause injuries if inhaled. Use an approved breathing mask. Avoid inhaling exhaust fumes. Always provide for good ventilation.

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.

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

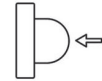
Ensure the blades are not cracked or damaged in any other way.

Do not use circular saw blades

Choke.

Air purge

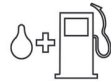
Decompression valve



Starter handle



Refuelling, petrol/oil mix



Starting instruction decal
See instructions under the heading Starting and stopping.



Noise emission to the environment according to the European Community's Directive. The machine's emission is specified in the Technical data chapter and on the label.



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



WARNING! Tampering with the engine voids the EU type-approval of this product.

Explanation of warning levels

The warnings are graded in three levels.

WARNING!



WARNING! Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

CAUTION!



CAUTION! Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE!



NOTICE! Is used to address practices not related to personal injury.

TROUBLESHOOTING

Troubleshooting schedule

Problem	Probable cause	Potential Solution
The blade does not rotate.	Guide roller knobs not tightened fully.	Tighten the guide roller knobs completely.
	The blade not fitted on guide rollers correctly.	Refit the blade and make sure the blade moves, see section "Assembling and adjustments".
	Support rollers tensioned too much.	Readjust support rollers.
The blade rotates too slowly.	Support rollers tensioned too much.	Tighten the guide roller knobs completely.
	Worn drive wheel.	Check for wear on the drive wheel, see section "Cutting blades". Change if needed, see section "Assembling and adjustments".
	The V-shaped inner diameter of the blade is worn.	Check for wear of the blade, see section "Cutting blades". Change if needed, see section "Assembling and adjustments".
	The springs on the guide rollers are weakened.	Replace complete guide roller assy or contact an authorised service workshop.
	Defective guide roller bearings.	Replace complete guide/support roller assy or contact an authorised service workshop.
	Defective support roller bearings.	
The blade jumps out of its position.	Support roller setting too loose.	Readjust support rollers.
	Worn guide rollers.	Check for wear on the guide rollers, see section "Maintenance". Change if needed.
	The blade not fitted on guide rollers correctly.	Refit the blade and make sure the blade moves, see section "Assembling and adjustments".
	Damaged blade.	Check for wear of the blade, see section "Cutting blades". Change if needed, see section "Assembling and adjustments".
The blade warps.	Support rollers tensioned too much.	Readjust support rollers.
	Blade overheating.	Check the waterflow, see section "Technical data"
Segments break.	Bent, twisted or badly maintained blade.	Continue to use the blade only if one segment is missing or leave for reconstruction when the blade is worn max 50 %.
		Check for wear of the blade, see section "Cutting blades". Change if needed, see section "Assembling and adjustments".
The blade cuts too slowly.	Wrong blade for the material in question.	Check blade recommendations, see section "Cutting blades". Change blade if needed, see section "Assembling and adjustments".
The blade slips.	The guide rollers does not move in and out freely. A seized guide roller can not press the blade hard enough against the drive wheel.	Check that the guide roller sleeves are free to move in and out. If not, remove, clean, regrease and refit. See section "Maintenance". Change if needed.
	Worn drive wheel. Abrasive material and too little water when cutting increases the wear on the wheel.	Check for wear on the drive wheel, see section "Cutting blades". Change if needed, see section "Assembling and adjustments".
	Worn guide roller flange. When more than half of the width of the flange is worn the blade slips.	Check for wear on the guide rollers, see section "Maintenance". Change if needed.
	The blade's groove and inner edge are worn. Caused by inferior flushing of abrasive material and/or a worn drive wheel causing the blade to slip.	Check blade, drive wheel and guide rollers, see section "Cutting blades". Change if needed, see section "Assembling and adjustments".
		Check the waterflow, see section "Technical data"

TROUBLESHOOTING

Troubleshooting schedule

Problem	Probable cause	Potential Solution
The machine does not start	Incorrect starting procedure.	See instructions under the heading Starting and stopping.
	Stop switch in the right (STOP) position	Make sure that the stop switch (STOP) is in the left position.
	There is no fuel in the fuel tank	Refill with fuel
	Spark plug defective	Replace the spark plug.
	Defective clutch	Contact your servicing dealer.
The blade rotates at idle	Idle speed too high	Adjust the idle speed
	Defective clutch	Contact your servicing dealer.
The blade does not rotate while throttling up	Belt too loose or defective	Tighten the belt / Replace the belt with a new one
	Defective clutch	Contact your servicing dealer.
	Blade fitted incorrectly	Make sure the blade is properly installed.
The machine has no power while attempting to throttle up	Clogged air filter	Check the air filter and replace if necessary.
	Clogged fuel filter	Replace the fuel filter.
	Fuel tank vent blocked	Contact your servicing dealer.
Vibration levels are too high	Blade fitted incorrectly	Check that the cutting blade is fitted correctly and does not show signs of damage. See the instructions in the sections "Cutting blades" and "Assembly and adjustments".
	Blade defective	Change the blade and make sure it is intact.
	Vibration damping elements defective	Contact your servicing dealer.
Temperature of the machine is too high	Air intake or cooling flanges blocked	Clean the machine's air intake/cooling flanges
	Belt slipping	Check belt / adjust the tension
	Clutch slipping / is defective	Always cut at full throttle.
		Check clutch / contact your service agent

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PRESENTATION

Dear Customer,

Thank you for choosing 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 authorized 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 (operating, 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.

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.

Design and features

This Ring cutter is a hand held power cutter designed to cut hard materials like concrete masonry and stone, and should not be used for any purpose not described in this manual. Safe operation of this product requires the operator to read this manual carefully. Ask your dealer if you need more information.

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

SmartCarb™

Built-in automatic filter compensation maintains high power and reduces fuel consumption.

Dura Starter™

Dust sealed starter unit, where the return spring and the pulley bearing are sealed which makes the starter virtually maintenance free and even more reliable.

X-Torq®

The X-Torq® engine provides a more accessible torque for a wider range of speeds which results in maximum cutting capacity. X-Torq® reduces the fuel consumption by up to 20% and the emissions by up to 60%.

EasyStart

The engine and starter are designed to ensure quick and easy starting of the machine. Reduces the pull resistance in the starter cord by up to 40%. (Reduces the compression during starting.)

Air purge

When you push the air purge diaphragm, fuel is pumped through to the carburettor. Fewer pulls are required for starting, meaning the machine becomes easier to start.

Large cutting depth

Gives a cutting depth of 270 mm (10,6") which is double the depth compared to traditional blades. Cuts can be made efficiently from one side.

Efficient vibration damping system

Efficient vibration dampers spare arms and hands.

Water cooling and dust management

The cutting equipment is provided with water cooling and dust management system for wet cutting and dust suppression.

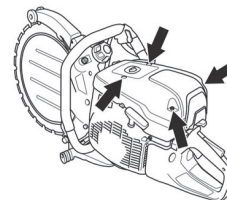
MAINTENANCE

- The filter cannot be cleaned but must be replaced with a new filter when it is clogged. **The filter should be changed at least once per year.**

Air filter

The air filter only needs to be checked if the engine drops in power.

- Loosen the screws. Remove the air filter cover.

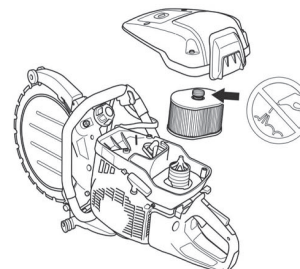


- Check the air filter and replace if necessary.

Replacing the air filter

NOTICE! The air filter must not be cleaned or blown clean with compressed air. This will damage the filter.

- Loosen the screws. Remove the cover.



- Replace the air filter.

Drive gear, clutch

- Check the clutch centre, drive gear and clutch spring for wear.

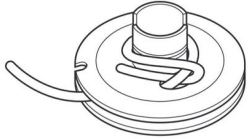
Reconstructing (re-tipping) the blade



WARNING! Ring cutter blades must not be reconstructed. Due to its design, a ring cutter blade is exposed to other strains than a centre driven 14 inch diamond blade. Firstly, the drive wheel is driven on the inner diameter of the blade so that both the surfaces of the drive wheel and the blade are exposed to wear. The core of the blade becomes thinner and the guide wider, which prevents the blade being driven by the wheel. Secondly, the blade is exposed to loads from the rollers and from the actual cutting process when the blade is not held completely straight. Strain builds up in the blade until it cracks or breaks if it has been reconstructed. A shattered blade can cause serious personal injuries to the user or other persons. For this reason does not approve ring cutting blades that have been reconstructed. Contact your dealer for instructions.

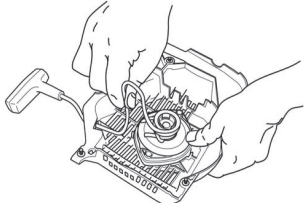
MAINTENANCE

the free end is as short as possible. Secure the end of the starter cord in the starter handle.



Tensioning the recoil spring

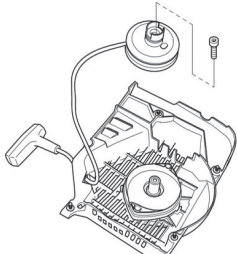
- Guide the cord through the cut-out in the periphery of the pulley and wind the cord 3 times clockwise around the centre of the starter pulley.



- Now pull the starter handle and in doing so tension the spring. Repeat the procedure once more, but this time with four turns.
- Note that the starter handle is drawn to its correct home position after tensioning the spring.
- Check that the spring is not drawn to its end position by pulling out the starter line fully. Slow the starter pulley with your thumb and check that you can turn the pulley at least a further half turn.

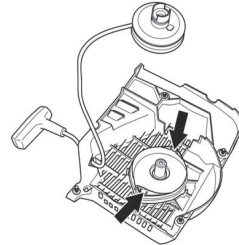
Changing a broken recoil spring

- Undo the bolt in the centre of the pulley and remove the pulley.

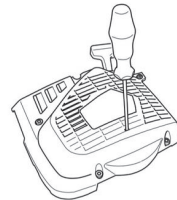


- Bear in mind that the return spring lies tensioned in the starter housing.

- Loosen the bolts holding the spring cassette.



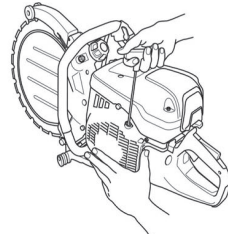
- Remove the recoil spring by turning the starter over and loosen the hooks, with the help of a screwdriver. The hooks hold the return spring assembly on the starter.



- Lubricate the recoil spring with light oil. Fit the pulley and tension the recoil spring.

Fitting the starter

- To fit the starter, first pull out the starter cord and place the starter in position against the crankcase. Then slowly release the starter cord so that the pulley engages with the pawls.



- Tighten the screws.

Fuel system

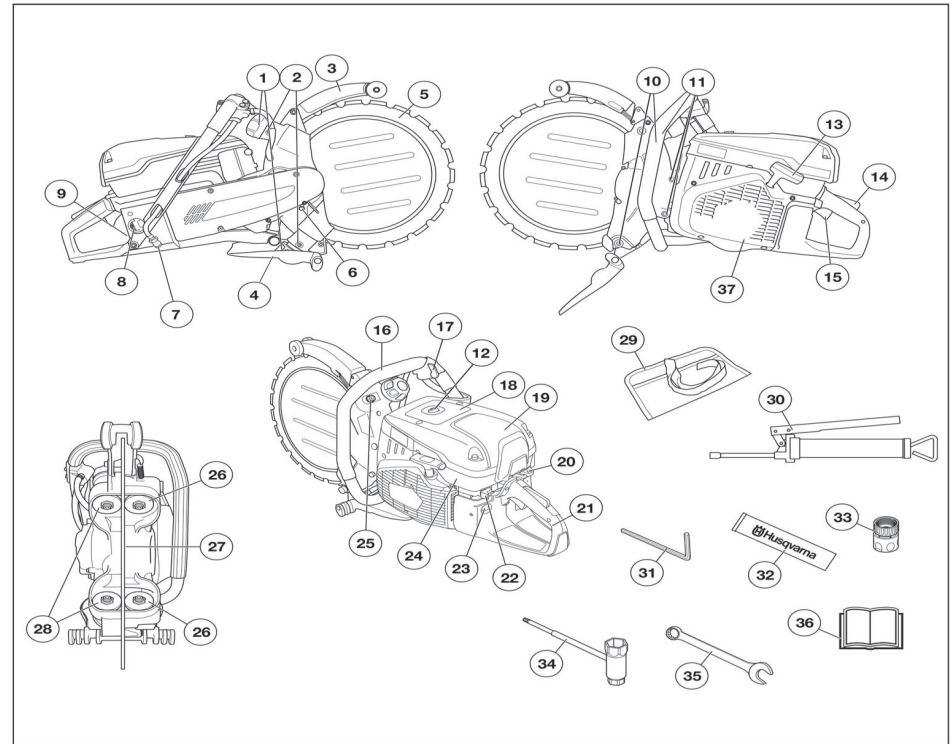
General

- Check that the fuel cap and its seal are not damaged.
- Check the fuel hose. Replace when damaged.

Fuel filter

- The fuel filter sits inside the fuel tank.
- The fuel tank must be protected from contamination when filling. This reduces the risk of operating disturbances caused by blockage of the fuel filter located inside the tank.

WHAT IS WHAT?



What is what on the power cutter? - GT970 Ring

- | | |
|---------------------------------------|---|
| 1 Control for the guide rollers knobs | 20 Choke control with start throttle lock |
| 2 Grease nipples | 21 Rear handle |
| 3 Blade guard | 22 Stop switch |
| 4 Spray guard | 23 Air purge |
| 5 Diamond blade (not supplied) | 24 Cylinder cover |
| 6 Locking button for the drive wheel | 25 Locking nuts for the support roller arms |
| 7 Water connection with filter | 26 Support rollers |
| 8 Fuel cap | 27 Drive wheel |
| 9 Rating plate | 28 Guide rollers |
| 10 Adjuster screws | 29 Tool bag |
| 11 Cover screws | 30 Grease gun |
| 12 Decompression valve | 31 6 mm hex key |
| 13 Starter handle | 32 Bearing grease |
| 14 Throttle trigger lockout | 33 Water connector, GARDENA® |
| 15 Throttle trigger | 34 Combination spanner, torx |
| 16 Front handle | 35 Open-ended spanner, 19 mm |
| 17 Water tap | 36 Operator's manual |
| 18 Warning decal | 37 Starter housing |
| 19 Air filter cover | |

MACHINE'S SAFETY EQUIPMENT

General



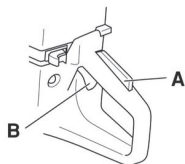
WARNING! Never use a machine that has faulty safety equipment! If your machine fails any checks contact your service agent to get it repaired.

The engine should be switched off, and the stop switch in STOP position.

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 trigger lockout

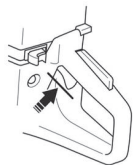
The throttle trigger lock is designed to prevent accidental operation of the throttle. When the lock (A) is pressed in this releases the throttle (B).



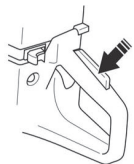
The trigger lock remains pressed in as long as the throttle is pressed. When the grip on the handle is released the throttle trigger and the throttle trigger lock both return to their original positions. This is controlled by two independent return spring systems. This means that the throttle trigger is automatically locked in the idle position.

Checking the throttle lockout

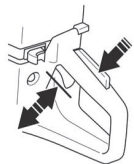
- Make sure that the throttle trigger is locked at idle setting when the throttle trigger lockout is released.



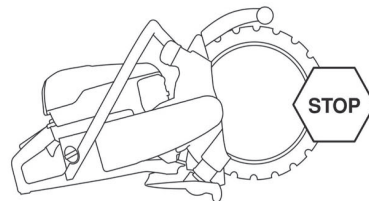
- Press the throttle lockout and make sure it returns to its original position when you release it.



- Check that the throttle trigger and throttle lockout move freely and that the return springs work properly.



- Start the power cutter and apply full throttle. Release the throttle control and check that the cutting blade stops and remains stationary. If the cutting blade rotates when the throttle is in the idle position you should check the carburettor's idle adjustment. See instructions in the section "Maintenance".



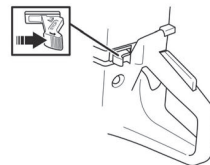
Stop switch

Use the stop switch to switch off the engine.



Checking the stop switch

- Start the engine and make sure the engine stops when you move the stop switch to the stop setting.

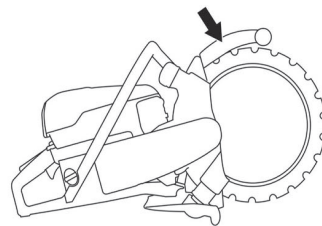


Blade guard



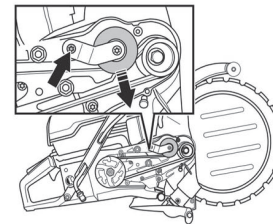
WARNING! Always check that the guard is correctly fitted before starting the machine.

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

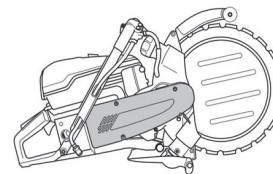


MAINTENANCE

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



- Fit the belt cover.



Carburettor

The carburettor is equipped with fixed needles to ensure the machine always receives the correct mixture of fuel and air. When the engine lacks power or accelerates poorly, do the following:

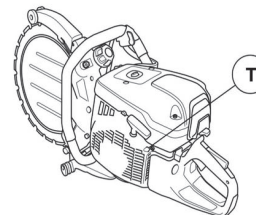
- Check the air filter and replace if necessary. When this does not help, contact an authorised service workshop.

Adjusting the idle speed



CAUTION! If the idle speed cannot be adjusted so that the cutting attachment stops, contact your dealer/service workshop. Do not use the machine until it has been correctly adjusted or repaired.

- Start the engine and check the idling setting. When the carburettor is set correctly the cutting blade should be still while engine is idling.
- Adjust the idle speed using the T screw. When an adjustment is necessary, first turn the screw clockwise until the blade starts to rotate. Now turn the screw anti-clockwise until the blade stops rotating.



Rec. idle speed: 2700 rpm

Starter housing

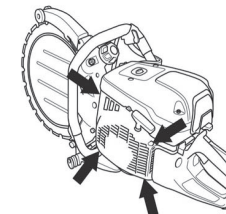


WARNING! When the recoil spring is wound up in the starter housing it is under tension and can, if handled carelessly, pop out and cause personal injury.

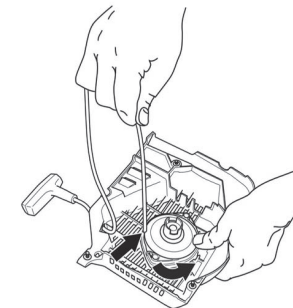
Always be careful when changing the recoil spring or the starter cord. Always wear protective goggles.

Changing a broken or worn starter cord

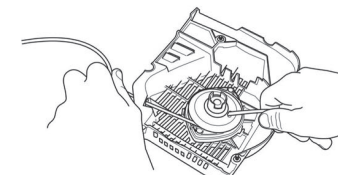
- Loosen the screws that hold the starter against the crankcase and remove the starter.



- Pull the cord out about 30 cm and lift it into the cut-out in the periphery of the starter pulley. When the cord is intact: Release the spring tension by letting the pulley rotate slowly backwards.



- Remove any remnants of the old starter cord and check that the return spring works. Insert the new starter cord through the hole in the starter housing and in the cord pulley.



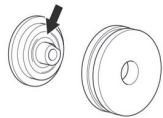
- Secure the starter cord around the cord pulley as illustrated. Tighten the fastening well and ensure that

MAINTENANCE

- 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.



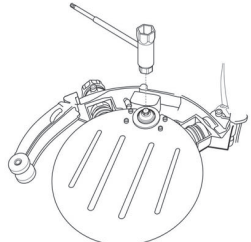
Drive wheel

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 shortens the 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.
- Tightening torque for the bolt holding the drive wheel is: 20 Nm (14,75 ft-lbs).

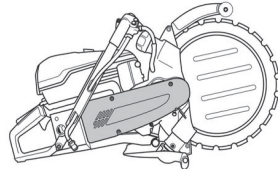
Drive belt

Tensioning the drive belt

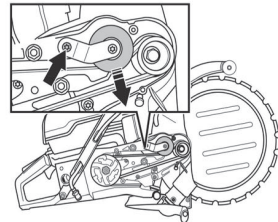
If the drive belt slips, it must be tensioned. The tension of a new drive belt must be readjusted after one or two tanks of fuel have been used.

The drive belt is enclosed and well protected from dust and dirt.

- Dismantle the cover and loosen the belt tensioning screw.



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

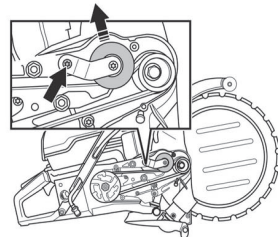


Replacing the drive belt



WARNING! Never start the engine when the belt pulley and clutch are removed for maintenance. Do not start the machine without the cutting arm or cutting head fitted. Otherwise the clutch could come loose and cause personal injuries.

- 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 clean and undamaged before a new drive belt is fitted.

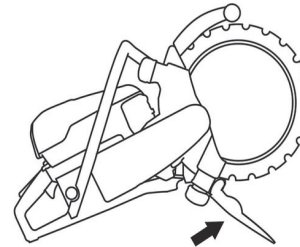
MACHINE'S SAFETY EQUIPMENT

Checking the blade and the blade guard

- Check that the guard over and under the cutting blade is not cracked or damaged in any other way. Replace when damaged.
- Check that the cutting blade is fitted correctly and does not show signs of damage. A damaged cutting blade can cause personal injury.

Spray guard

The spray guard provides protection against ejected debris, thrown water and concrete slurry.



Checking the spray guard

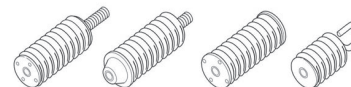
Ensure there are no cracks or holes from slurry blasting in the spray guard. Replace guard if damaged.

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. The engine body, including the cutting equipment, is insulated from the handles by vibration damping units.



Checking the vibration damping system



WARNING! The engine should be switched off, and the stop switch in STOP position.

- 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.

Muffler



WARNING! Never use a machine without a muffler, or with a faulty muffler. A damaged muffler may substantially increase the noise level and the fire hazard. Keep fire fighting equipment handy.

The muffler gets very hot during and after use as well as when idling. Be aware of the fire hazard, especially when working near flammable substances and/or vapours.

Keep fire fighting equipment handy.

The muffler is designed to keep noise levels to a minimum and to direct exhaust fumes away from the user.



Inspecting the muffler

Check regularly that the muffler is complete and secured correctly.

CUTTING BLADES

General



WARNING! A cutting blade may burst and cause injury to the operator. Only use ring cutter blades designed by use on this machine.

The cutting blade manufacturer issues and provides warnings and recommendations for proper use and care of the cutting blades. Read and follow all instructions.

A cutting 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 cutting blade.

Water cooling



WARNING! Cool diamond blades for wet cutting continuously with water to prevent overheating, which may deform the blade and cause damage to the blade and injury to the user.

- Water cooling must always be used. When wet cutting, the blade and the ring drive system is continuously cooled to prevent overheating.

Diamond blades for different materials



WARNING! Never use a cutting blade for any other materials than what it was intended to cut.

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.

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

- Diamond blades are ideal for masonry, reinforced concrete and other composite materials.
- We offers a number of blades for different materials in its range. Check with your dealer to see which blades are best suited for your usage.

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 dull 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.

Vibrations on diamond blades

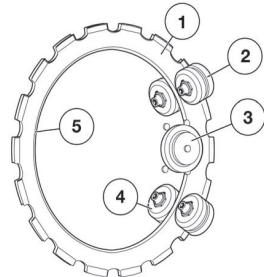
- The blade can become out of round and vibrate if a too high feed pressure is used.
- A lower feed pressure can stop the vibration. Otherwise replace the blade.

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 370 mm (14 inches) diamond blade.



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

Checking wear

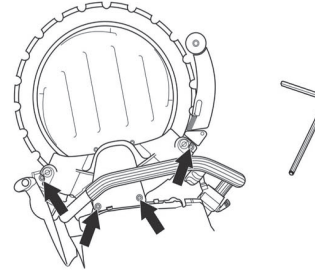
As the blade is used the inside diameter and the groove in the drive wheel become worn.

The ring cutter will also work well in the future if:

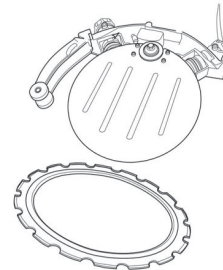
- the drive wheel is not too worn
- 1) New

MAINTENANCE

- Remove the support roller cover.

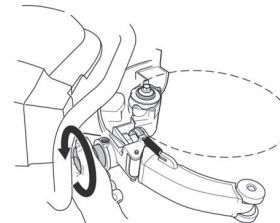


- Lift off the blade.

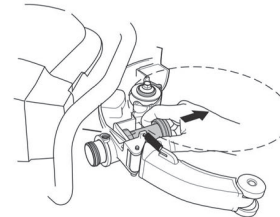


- Unscrew the knob. First turn the knob a few turns until you feel a resistance. The guide roller then follows the knob out and stops when it feels a resistance.

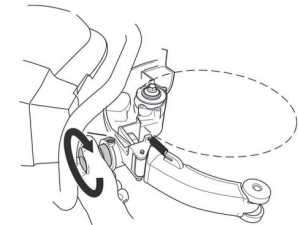
The guide roller is pressed into the knob. In order to loosen the guide roller, you need to continue turning the knob until it loosens completely.



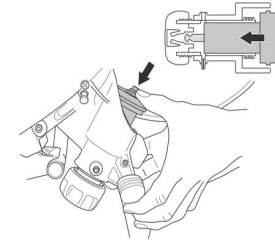
- The guide roller can now be pulled out of the chassis.



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



- Insert the new guide roller in the chassis. Now press the guide roller into the knob.

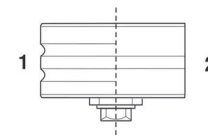


- Lubricate the guide rollers. See instructions under the heading "Lubricating the guide rollers".
- Fit the blade. See instructions in the section "Assembling and adjustments".

Support rollers

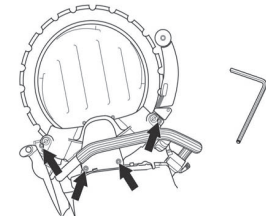
Replace the support rollers when the roller surface is flat, when the groove on the roller surface has worn away.

- 1) New
- 2) Worn



Replacing the support rollers

- Remove the support roller cover.



MAINTENANCE

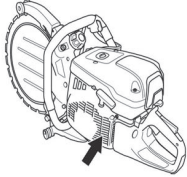
Cleaning

External cleaning

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

Cooling air intake

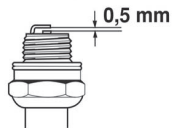
- Clean the cooling air intake when needed.



NOTICE! A dirty or blocked air intake results in the machine overheating which causes damage to the piston and cylinder.

Spark plug

- If the machine is low on power, difficult to start or runs poorly at idle speed: always check the spark plug first before taking other steps.
- Ensure that the spark plug cap and ignition lead are undamaged to avoid the risk of electric shock.
- If the spark plug is dirty, clean it and at the same time check that the electrode gap is 0.5 mm. Replace if necessary.



NOTICE! Always use the recommended spark plug type! Use of the wrong spark plug can damage the piston/cylinder.

These factors cause deposits on the spark plug electrodes, which may result in operating problems and starting difficulties.

- An incorrect fuel mixture (too much or incorrect type of oil).
- A dirty air filter.

Functional inspection

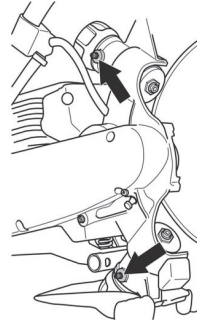
General inspection

- Check that nuts and screws are tight.

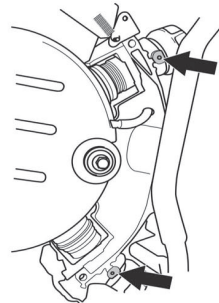
Guide rollers

Lubricating the guide rollers

- Connect the grease gun to the grease nipples.



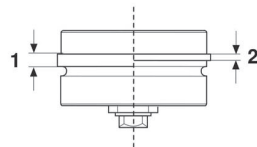
- Pump in grease until clean grease emerges from the overflow hole.



Replacing the support guide rollers

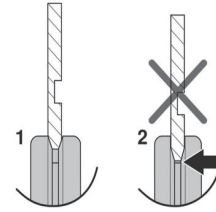
Replace the guide rollers when half of the flange on the rollers is worn.

- 1) New, 3 mm (0.12")
- 2) Worn, ≤ 1,5 mm (0.06")

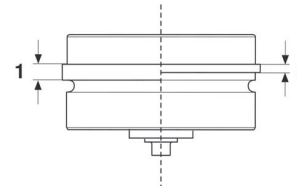


CUTTING BLADES

2) Worn



- the guide rollers are not too worn
- 1) New, 3 mm (0.12")
 - 2) Worn, ≤ 1,5 mm (0.06")



- adjustment between the rollers and blade is correct. See instructions in the section "Assembling and adjustments".

The roller setting should be checked twice during the life of the diamond blade, once after fitting the blade and when the blade is semi worn.

Transport and storage

- Store the blade in a dry place.
- Inspect all blades for transport or storage damage.

ASSEMBLING AND ADJUSTMENTS

Fitting the blade



WARNING! It is forbidden to reconstruct a used blade. A used blade may be weakened. A reconstructed blade can crack or break into pieces and seriously injury the operator or other persons.

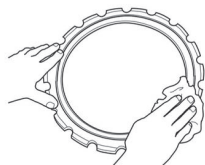


WARNING! Check that the blade is not damaged before fitting it on the machine. Damaged blades can disintegrate and cause serious personal injury.

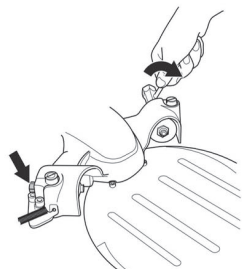
NOTICE! Replace the drive wheel when fitting a new blade. A worn drive wheel can result in the blade slipping and becoming damaged.

Inadequate water flow drastically shortens the life of the drive wheel.

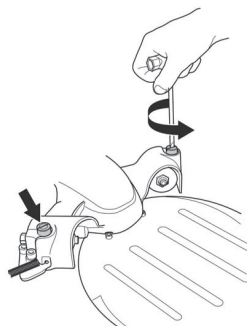
- Wipe off any dirt from the surface of the blade.



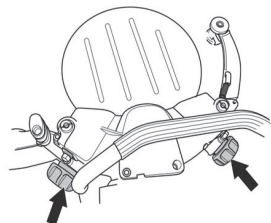
- Loosen the locking nuts on the support roller cover.



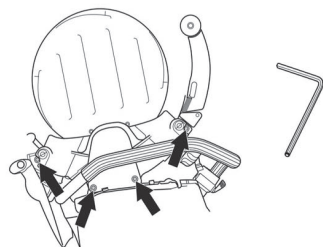
- Unscrew the adjuster screws a few turns.



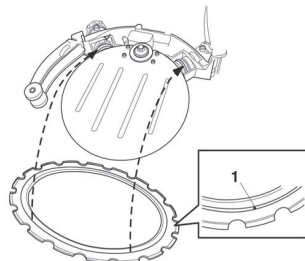
- Loosen the knob to offload the springs.



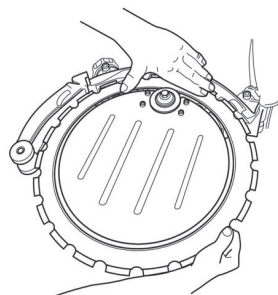
- Remove the four screws holding the support roller guard using a 6 mm hex key and lift off the cover.



- Fit the blade.
- The blade has a groove (1) on one side that acts as 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.



- 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.



MAINTENANCE

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.

The engine should be switched off, and the stop switch in STOP position.

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 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 maintenance	Monthly maintenance
Cleaning	Cleaning	Cleaning
External cleaning		Spark plug
Cooling air intake		Fuel tank
Functional inspection	Functional inspection	Functional inspection
General inspection	Vibration damping system*	Fuel system
Throttle lockout*	Muffler*	Air filter
Stop switch*	Drive belt	Drive gear, clutch
Blade guards*	Carburettor	
Diamond blade**	Starter housing	
Guide rollers		
Support rollers		
Drive wheel		

*See instructions in the section "Machine's safety equipment".

** See instructions in the section "Cutting blades" and "Assembling and adjustments".

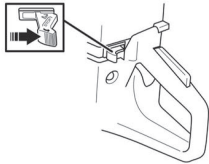
STARTING AND STOPPING

Stopping



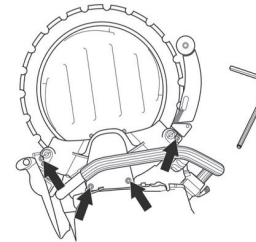
CAUTION! The cutting blade continues to rotate up to a minute after the motor has stopped. (Blade coasting.) Make sure that the cutting blade can rotate freely until it is completely stopped. Carelessness can result in serious personal injury.

- Stop the engine by moving the stop switch (STOP) to the right.

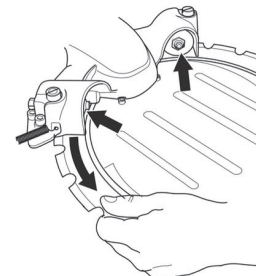


ASSEMBLING AND ADJUSTMENTS

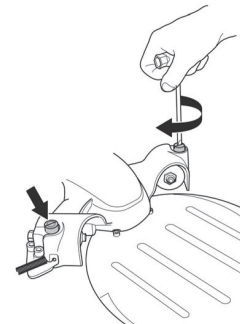
- Fit the support roller cover. Now tighten the four screws fully.



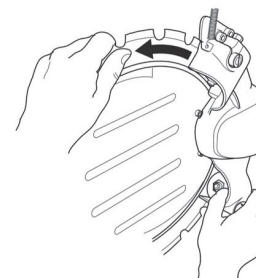
- Rotate the blade and make sure that the support rollers are not clamped against the blade.



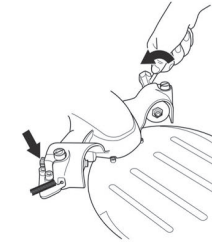
- Adjust the adjuster screws so that the support rollers make contact against the blade.



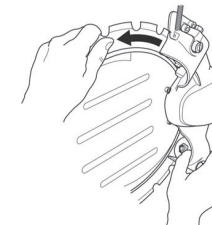
- Adjust so you can easily stop the support rollers using your thumb when the blade is rotated. The support rollers should only follow the blade occasionally.



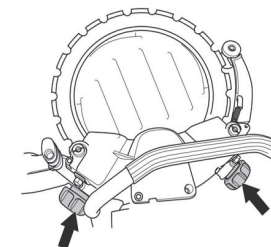
- Tighten the locking nuts on the support roller guard.



- Rotate the blade and make sure you can still hold the rollers with your thumb when the blade is rotated. The machine shall stand upright when checking the roll pressure. If the machine lies on its side the weight of the blade makes it difficult to make a correct adjustment.



- Tighten the knobs fully and the machine is ready to use.

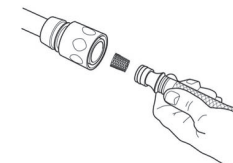


CAUTION! Incorrect adjustment can result in damage to the blade.

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

Water hose

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



FUEL HANDLING

General



WARNING! Running an engine in a confined or badly ventilated area can result in death due to asphyxiation or carbon monoxide poisoning. Use fans to ensure proper air circulation when working in trenches or ditches deeper than one meter.

Fuel and fuel fumes are flammable and can cause serious injury when inhaled or allowed to come in contact with the skin. For this reason observe caution when handling fuel and make sure there is adequate ventilation.

The exhaust fumes from the engine are hot and may contain sparks which can start a fire. Never start the machine indoors or near combustible material!

Do not smoke and do not place any hot objects in the vicinity of fuel.

Fuel

NOTICE! The machine is equipped with a two-stroke engine and must always be run using a mixture of petrol and two-stroke oil. It is important to accurately measure the amount of oil to be mixed to ensure that the correct mixture is obtained. When mixing small amounts of fuel, even small inaccuracies can drastically affect the ratio of the mixture.

Petrol

- Use good quality unleaded or leaded petrol.
- The lowest octane recommended is 90 (RON). If you run the engine on a lower octane grade than 90 so-called knocking can occur. This gives rise to a high engine temperature, which can result in serious engine damage.
- When working at continuous high revs a higher octane rating is recommended.

Environment fuel

We recommends the use of alkylate fuel, either Aspen two-stroke fuel or environmental fuel for four-stroke engines blended with two-stroke oil as set out below. Note that carburettor adjustment may be necessary when changing the type of fuel (see the instructions under the heading Carburettor).

Ethanol blended fuel, E10 may be used (max 10% ethanol blend). Using ethanol blends higher than E10 will create lean running condition which can cause engine damage.

Two-stroke oil

- For best results and performance use two-stroke engine oil, which is specially formulated for our air-cooled two-stroke engines.
- Never use two-stroke oil intended for water-cooled engines, sometimes referred to as outboard oil (rated TCW).
- Never use oil intended for four-stroke engines.

Mixing

- Always mix the petrol and oil in a clean container intended for fuel.
- Always start by filling half the amount of the petrol to be used. Then add the entire amount of oil. Mix (shake) the fuel mixture. Add the remaining amount of petrol.
- Mix (shake) the fuel mixture thoroughly before filling the machine's fuel tank.
- Do not mix more than one month's supply of fuel at a time.

Mixing ratio

- 1:50 (2%) with wo-stroke oil or equivalent.

Petrol, litre	Two-stroke oil, litre
	2% (1:50)
5	0,10
10	0,20
15	0,30
20	0,40

- 1:33 (3%) with oils class JASO FB or ISO EGB formulated for air-cooled, two-stroke engines or mix as per recommendation from the oil manufacturer.

STARTING AND STOPPING

- Press the throttle trigger to disengage the start throttle and the machine will idle.

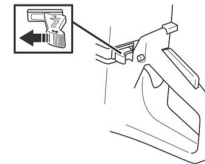
NOTICE! Pull with your right hand out the starter cord slowly until you feel a resistance (as the starter pawls engage) and then pull firmly and rapidly.

Do not pull the starter cord all the way out and do not let go of the starter handle when the cord is fully extended. This can damage the machine.

With a warm engine:



- Make sure that the stop switch (STOP) is in the left position.



- Set the choke control in the choke position. The choke position is also the automatic start throttle position.



- **Decompression valve:** Press in the valve to reduce the pressure in the cylinder, this is to assist starting the power cutter. The decompression valve should always be used when starting. The valve automatically returns to its initial position when the machine starts.



- Push the choke control to disable the choke (the start throttle position remains).



- Grip the front handle with your left hand. Put your right foot on the lower section of the rear handle pressing the machine against the ground. Pull the starter

handle with your right hand until the engine starts. **Never twist the starter cord around your hand.**



- Press the throttle trigger to disengage the start throttle and the machine will idle.

NOTICE! Pull with your right hand out the starter cord slowly until you feel a resistance (as the starter pawls engage) and then pull firmly and rapidly.

Do not pull the starter cord all the way out and do not let go of the starter handle when the cord is fully extended. This can damage the machine.



WARNING! When the engine is running the exhaust contains chemicals such as unburned hydrocarbons and carbon monoxide. The content of the exhaust fumes is known to cause respiratory problems, cancer, birth defects or other reproductive harm.

Carbon monoxide is colorless and tasteless and is always present in exhaust fumes. The onset of carbon monoxide poisoning is distinguished by a slight dizziness which may or may not be recognized by the victim. A person may collapse and lapse into unconsciousness with no warning if the concentration of carbon monoxide is sufficiently high. Since carbon monoxide is colorless and odorless, its presence can not be detected. Any time exhaust odors are noticed, carbon monoxide is present. Never use a petrol powered power cutter indoors or in trenches more than 3 foot (1 meter) deep or in other areas with poor ventilation. Ensure proper ventilation when working in trenches or other confined areas.

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".

Do not start the machine without the belt and belt guard fitted. Otherwise the clutch could come loose and cause personal injuries.

Check that the fuel cap is properly secured, and that there is no fuel leakage.

Make sure no unauthorised persons are in the working area, otherwise there is a risk of serious personal injury.

- Perform daily maintenance. See instructions in the section "Maintenance".

Starting

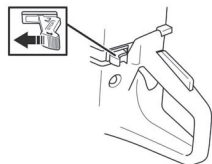


WARNING! The cutting blade rotates when the engine is started. Make sure it can rotate freely.

With a cold engine:



- Make sure that the stop switch (STOP) is in the left position.

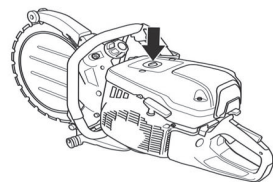


- Start throttle position and choke is obtained by pulling out the choke control completely.

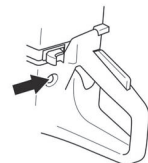


- **Decompression valve:** Press in the valve to reduce the pressure in the cylinder, this is to assist starting the power cutter. The decompression valve should always be used when starting. The valve

automatically returns to its initial position when the machine starts.



- Press the air purge diaphragm repeatedly until fuel begins to fill the diaphragm (about 6 times). The diaphragm need not be completely filled.



- Grip the front handle with your left hand. Put your right foot on the lower section of the rear handle pressing the machine against the ground. Pull the starter handle with your right hand until the engine starts. **Never twist the starter cord around your hand.**



- Push in the choke control as soon as the engine starts, with the choke pulled out the engine will stop after a few seconds. (If the engine stops anyway, pull the starter handle again.)

FUEL HANDLING

Fueling



WARNING! Taking the following precautions, will lessen the risk of fire:

Do not smoke and do not place any hot objects in the vicinity of fuel.

Always stop the engine and let it cool for a few minutes before refuelling. The engine should be switched off, and the stop switch in STOP position.

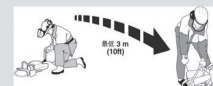
When refuelling, open the fuel cap slowly so that any excess pressure is released gently.

Clean the area around the fuel cap.

Tighten the fuel cap carefully after refuelling.

If the cap is not properly tightened the cap might vibrate lose and fuel may escape from the fuel tank creating a fire hazard.

Move the machine at least 3 m from the refuelling point before starting it.



Never start the machine:

- If you have spilled fuel or engine oil on the machine. Wipe off the spill and allow the remaining fuel to evaporate.
- If you have spilled fuel on yourself or your clothes, change your clothes. Wash any part of your body that has come in contact with fuel. Use soap and water.
- If the machine is leaking fuel. Check regularly for leaks from the fuel cap and fuel lines.
- Unless the fuel cap is securely tightened after refueling.

Transport and storage

- Store and transport the machine and fuel so that there is no risk of any leakage or fumes coming into contact with sparks or open flames, for example, from electrical machinery, electric motors, electrical relays/ switches or boilers.
- When storing and transporting fuel always use approved containers intended for this purpose.

Long-term storage

- When storing the machine for long periods the fuel tank must be emptied. Contact your local petrol station to find out where to dispose of excess fuel.

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. Always use approved hearing protection. Listen for warning signals or shouts when you are wearing hearing protection. Always remove your hearing protection as soon 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. We recommend 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
- Always have a first aid kit nearby.

General safety precautions

This section describes basic safety directions for using the machine. This information is never a substitute for professional skills and experience.

- Please read 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 instruction 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.

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 the machine if you are fatigued, while under the influence of alcohol or drugs, medication or anything that could affect your vision, alertness, coordination or judgement.



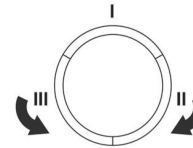
WARNING! Unauthorized modifications and/or accessories may lead to serious injury or death to the user or others. Under no circumstances may the design of the machine be modified without the permission of the manufacturer.

Do not modify this product or use it if it appears to have been modified by others.

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 instructions under the Maintenance heading.

Always use genuine accessories.

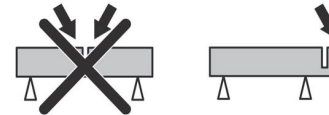
- 3 Move to side III and cut the remaining part of the pipe ending at the bottom.



How to avoid 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. Never cut in a narrower pre-cut 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.

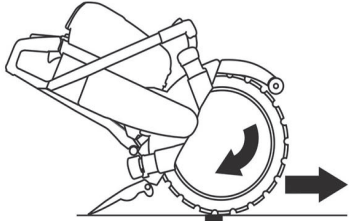
Transport and storage

- Secure the equipment during transportation in order to avoid transport damage and accidents.
- Use supplied plywood box for transport and storage of the power cutter and cutting equipment.
- For transport and storage of cutting blades, see the section "Cutting blades".
- For transport and storage of fuel, see the section "Fuel handling".
- Store the equipment in a lockable area so that it is out of reach of children and unauthorized persons.

OPERATING

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.

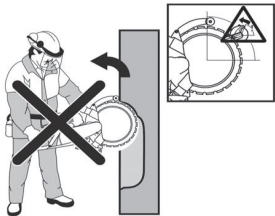
Kickback zone

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 closes 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.

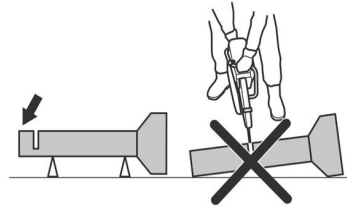


If the blade is pinched or stalled in the kickback zone, the reactive force will push the power cutter up and back towards the user in a rotating motion causing serious or even fatal injury. Be alert for potential movement of the work piece. If the work piece is not properly supported and shifts as you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

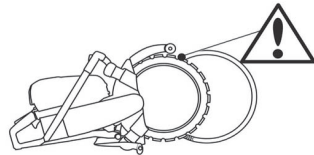
Pipe cutting

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 alert when 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 close 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.

OPERATING



WARNING! This machine produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this machine.

Work area safety



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.

- Observe your surroundings to ensure that nothing can affect your control of the machine.
- Ensure that no one/nothing can come into contact with the cutting equipment or be hit by parts thrown by the blade.
- Do not use the machine in bad weather, such as dense fog, heavy rain, strong wind, intense cold, etc. Working in bad weather is tiring and can lead to dangerous conditions, e.g. slippery 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 injury to the operator. Take great care when working on sloping ground.
- Ensure that the working area is sufficiently illuminated to create a safe working environment.
- Make sure that no pipes or electrical cables are routed in the working area or in the material to be cut.
- If cutting into a container (drum, pipe, or other container) you must first make sure it does not contain flammable or other volatile material.

Water cooling and dust management

Water cooling must always be used. Dry cutting causes immediate overheating and machine and cutting blade failure with a risk of personal injury.

In addition to cooling the cutting blade, the flow of water pushes particles away. As a result it is important with a high water pressure. For recommended water pressure and flow, see section "Technical data".

If water hoses loosen from their supply sources, this indicates that the machine is connected to a water pressure that is too high.

Wet cutting also provides adequate dust suppression.

Basic working techniques



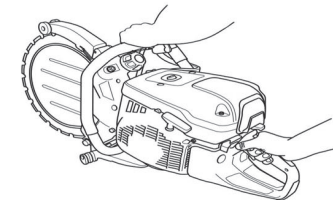
WARNING! Do not pull the power cutter to one side, this can cause the blade to jam or break resulting in injury to people.

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

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.

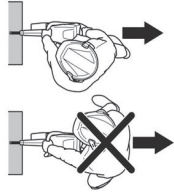
Cutting metal generates sparks that may cause fire. Do not use the machine near ignitable substances or gases.

- The machine is designed and intended for cutting with diamond blades intended for ring cutters. The machine shall not be used with any other type of blade, or for any other type of cutting.
- Check that the cutting blade is fitted correctly and does not show signs of damage. See the instructions in the sections "Cutting blades" and "Assembly and adjustments".
- Check that the correct cutting blade is used for the application in question. See instructions in the section "Cutting 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.

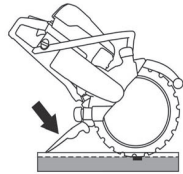


OPERATING

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



- Maintain a safe distance from the cutting blade when the engine is running.
- Never leave the machine unsupervised with the motor running.
- Never move the machine when the cutting equipment is rotating.
- 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

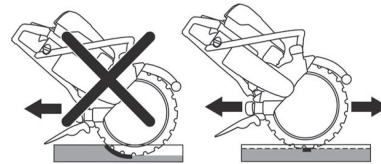


- Stand at a comfortable distance from the work piece.
- Check that the blade is not in contact with anything when the machine is started
- Apply the cutting blade gently with high rotating speed (full throttle) Maintain full speed until cutting is complete.
- Let the machine work without forcing or pressing the blade.

- Feed down the machine in line with the blade. Pressure from the side can damage the blade and is very dangerous.



- Move the blade slowly forwards and backwards to achieve a small contact area between the blade and the material to be cut. This reduces the temperature of the blade and ensures effective cutting.



Pilot method



WARNING! Never use a power cutter with a standard cutting blade for pilot cutting. The cutting blade produces a pilot slot that is too thin and continued cutting with the ring cutter results infallibly in dangerous kickback and jamming in the slot.

This method is recommended when attempting to cut absolutely straight and square.

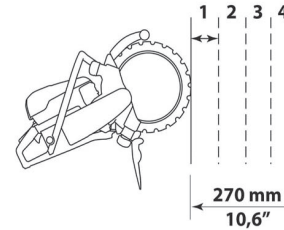
For best cutting economy, pre-cut with a power cutter equipped with special pre-cutting blade intended for further cutting with ring cutter.

- Start by securing a board where the cut is to be made. This serves as a guide for the cut. Cut to a depth of a few centimetres along the entire line, using the lower section of the tip of the bar. Go back and cut another few centimetres. Repeat until a depth of between 5–10 centimetres is reached, depending on precision demands and the thickness of the object. The pilot cut guides the bar straight during continued cutting, which takes place according to the plunge-cut method until full depth is reached, use a rubber block as a break point/stop.

OPERATING

Cutting depth

GT970 II/III Ring can cut up to a depth of 270 mm (10,6 inches). 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. Remove the guides once the marking cut has been made.



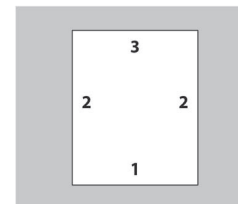
Small work

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

Cutting holes

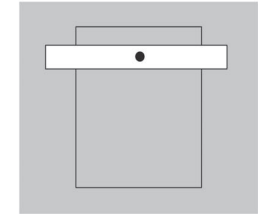
NOTICE! If the upper horizontal cut is made before the lower horizontal cut, the work piece will fall on the blade and jam it.

- 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.



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.

