HUsqvarna®

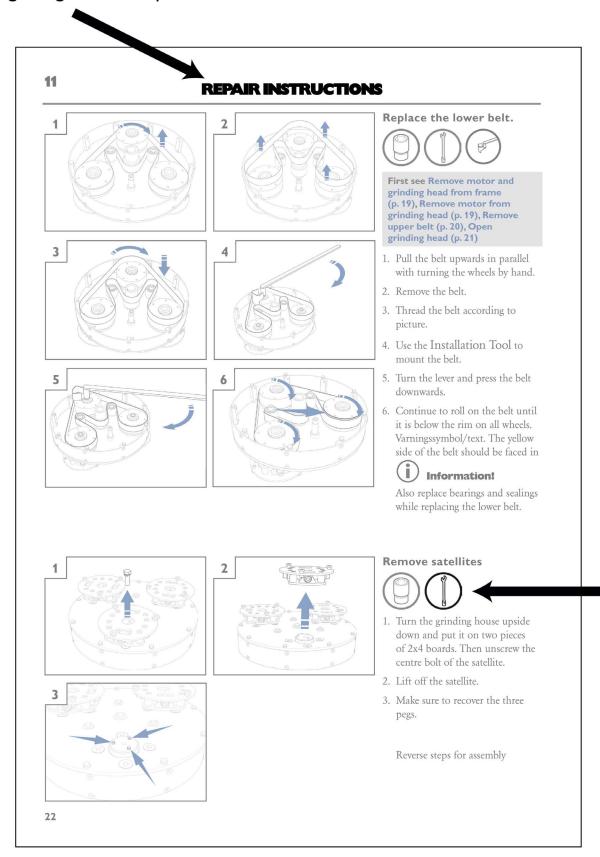


Workshop manual MS 360 G



LEGEND

Clicking the title will bring you to the beginning of that chapter.



Alt + Left arrow = Back Ctrl + L = Fullscreen Clicking a black circle will bring you to the Tools section.

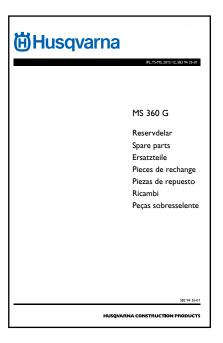
3. Literature	
Workshop Manual	
Spare Parts Catalog	
Operator's Manual	
4. Safety Instructions	
General	
Warning and Information	
ESD general notice	
6. Tools and Special Tools	
Tools	6
7. Components - Navigation MS 360 G Navigation	
8. Troubleshooting	
Problem with tile cracks	
9. Repair Instructions	
Replacing Belt and pulleys	
Replace blade shaft bearings	12
Renovate the water pump	15
Assembling the water pump	17
Adjust the blade depth	
Check the blade alignment	
Aligning the blade	
Measure/Adjust the Conveyor Cart Wheel Traction	21







HUSQVARNA CONSTRUCTION PRODUCT





Ope ra tor 's manual Manuel d'utilis ation Manual de inst rucciones MS 360 G



3. LITERATURE

Workshop Manual

The workshop manual covers all workshop maintenance for the MS 360 G. Some very simple and obvious repair work has been omitted.

The manual is divided into numbered chapters as well as chapter headings that are specified in bold at the top of each page.

The table of contents at the beginning of the manual also has a page reference to the beginning of each chapter.

Spare Parts Catalog

These catalogs include all the spares for Husqvarna MS 360 G.

The catalogs contain complete exploded drawings for each product and the location, spare part number, and appearance of each component is easy to identify.

Operator's Manual

The operator's manual describes how the machine is to be used, the functions of the machine, and the maintenance the operator normally carries out.

This manual also contains important instructions for the safe handling of the machine.

It is important that service personnel are well acquainted with how the machine is used and follow the instructions given in the manual.

Documentation:

http://support.husqvarnacp.com

4. SAFETY INSTRUCTIONS

General

- No one may repair the MS 360 G unless they have read and understood the contents of this workshop manual.
- This workshop manual is written for personnel with general knowledge about the repair and service of MS 360 G.
- The workshop where the MS 360 G is to be repaired must be equipped with safety equipment in accordance with local bylaws.
- The machine is tested and approved only with equipment originally provided or recommended by the manufacturer.
- It is the responsibility of the user of this workshop manual to ensure that the service and repairs are carried out according to legal requirements to protect the health and safety of the personnel undertaking the work.
- Always read the warning label on the packaging for Loctite and oil, and act according to its instructions.
- Always stop the MS 360 G before carrying out any service or repairs.
- When using compressed air, do not direct the jet towards the body. Air can penetrate into the blood circulation system, which could be fatal.
- · Observe local waste regulations.
- Electric shock could cause injury. Do not touch the wires while the MS 360 G is on or plugged in.
- Always make sure all nuts and bolts are correctly tightened.
- Wear personal protective equipment.
- · Never carry the machine by holding the cable and never pull the plug by pulling the cable.
- Check that the cables are intact and in good condition. Use cables intended for outdoor use.
- Never use the machine if any cable is damaged.

Warning and Information



Warning!

The warning box indicates there is a risk of personal injury if the instructions are not followed.



Information!

The information box provides instructions for the reader.

ESD general notice

All electrical devices are sensitive to ElectroStatic Discharges (ESD). A person may carry thousands of volts from being charged sitting in a car seat, wearing shoes with synthetic soles or a synthetic jacket. All discharges one can feel is certain to destroy electronic components. Even those discharges one can't feel may still damage or destroy electronic components. When working with electronic components in our products, always use proper ESD protection!.

6. TOOLS AND SPECIAL TOOLS

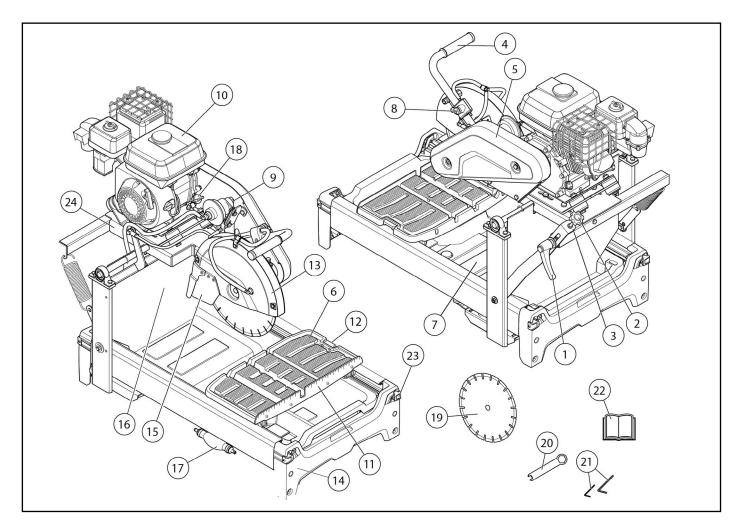
In the list below you will find the tools and the special tools used in this workshop manual.

Tools

Tool	Tool no.	Description
		Wrench set 10-19mm
	525 45 52-01	Allen Key, Kit 2.5 - 10 mm
		Screwdriver
		Steel Ruler, 0 - 500 mm
		Set Square
		Circlip Pliers
	504 90 90-02	Outer Bearing Puller
		Work shop press
		Various set of collars for workshop press
		Loctite 243
		Spirit level

7. COMPONENTS - NAVIGATION

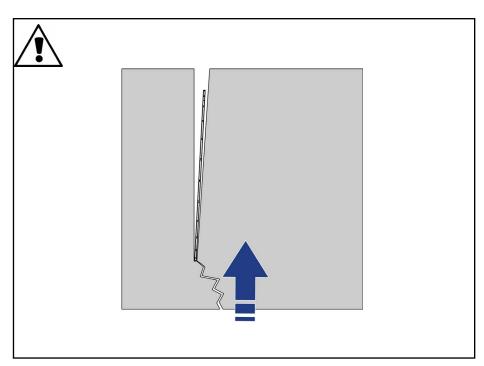
MS 360 G Navigation



- 1. Locking knob, depth adjustment
- 2. Knob, depth stop adjustment
- 3. Locking nut, depth stop adjustment
- 4. Handle, cutting arm
- 5. Belt cover
- 6. Conveyor cart
- 7. Water tray
- 8. Water knob, water to blade ON/OFF
- 9. Water pump
- 10.Engine
- 11. Detachable anvil with ruler
- 12. Locking knob, conveyor cart

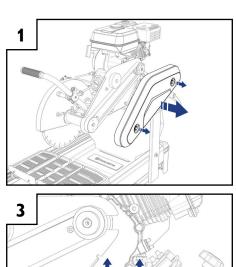
- 13. Blade Guard
- 14.Frame
- 15.Splash guard
- 16. Splash guard
- 17.Bulb
- 18.ON/OFF switch
- 19.Blade
- 20.Wrench
- 21. Allen key
- 22. Operator's manual
- 23. Handle
- 24. Type plate

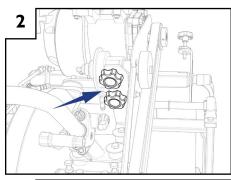
8. TROUBLESHOOTING

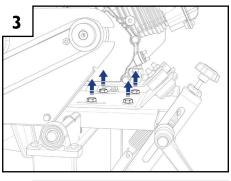


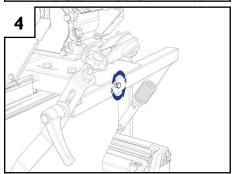
Problem with tile cracks

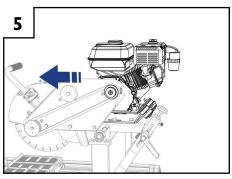
If the tiles cracks at the end of a cut the blade is most likely not properly aligned with the conveyor cart. See: Check the blade alignment. (p. 19)

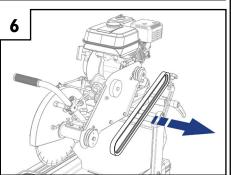


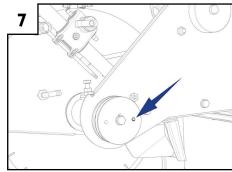


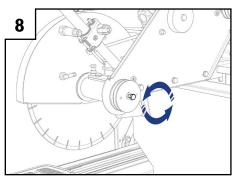


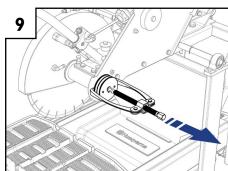


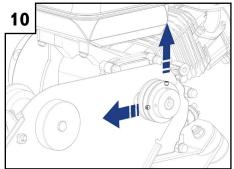




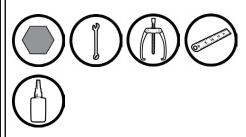




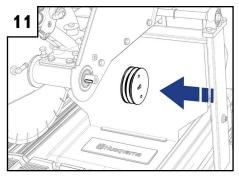


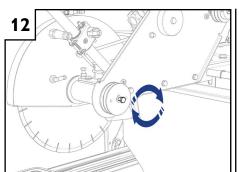


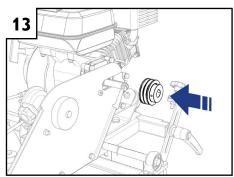
Replace Belt and pulleys



- 1. Remove the belt cover by unscrewing the 2 screws.
- 2. Release the 2 knobs that hold the water pump and slide it away from the belt and tighten one of the knobs.
- 3. Loosen the 4 screws holding the engine bracket.
- 4. Loosen the belt tensioning screw about 10 turns.
- 5. Push the motor forward to release the tension of the belt.
- 6. Remove the belt from the pulleys.
- 7. Use a 7/32 inch or 5,5mm pin to lock the rotation of the belt pulley.
- 8. Unscrew the center screw on the blade shaft that holds the belt pulley.
- 9. If the pulley does not come off by hand, insert the original screw and use a bearing puller to remove the pulley.
- 10. Loosen the 2 set screws that hold the pulley on the engine shaft and remove it.







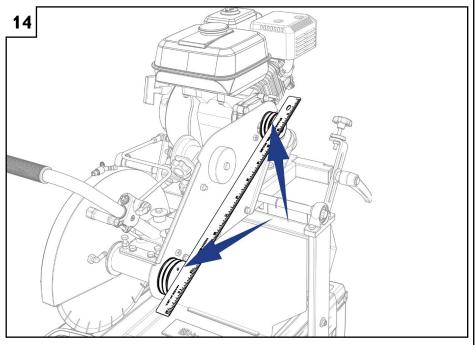
13. Ensure that the key is in place in the slot and then slide the pulley on to the engine shaft.

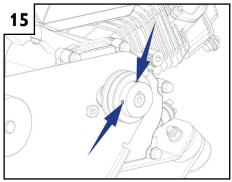
11. Ensure that the key is in place in the slot and then slide the pulley

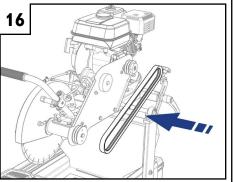
12. Assemble the center screw with threadlocker (e.g. Loctite 243). Use a 7/32 inch or 5,5mm pin to lock the rotation of the pulley and tighten the screw to with 35Nm.

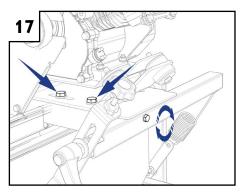
on to the blade shaft.

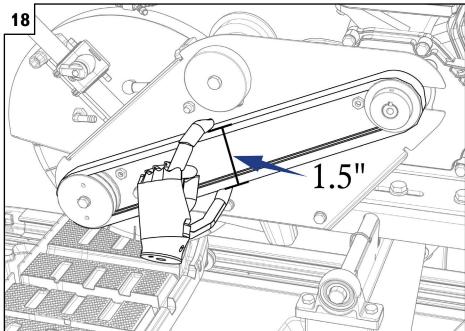
- 14. Put a ruler to the side of the pulleys to ensure that they are aligned to each other.
- 15. When the pulleys are aligned, tighten the 2 set screws in each pulley.
- 16. Put the belt back on.

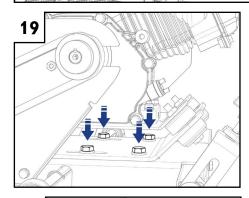


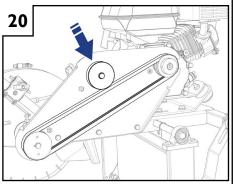


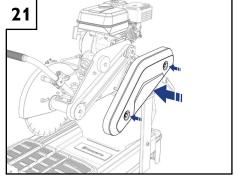






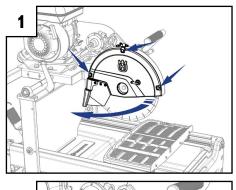


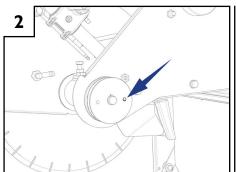




- 17. Let the 4 screws holding the engine bracket be a little bit loose when tensioning the belt to keep the engine in a straight position.
- 18. Tighten the belt to 40Hz ±3. If you do not have a hertz meter, use your thumb and index finger to press the belt together with normal pressure. The distance between the belt should be about 1.5 inch or 38 mm.
- 19. Tighten the 4 engine screws and check again that the pulleys are aligned with each other with a ruler.
- 20. Press the water pump wheel down onto the belt. The belt should be pressed down by 1/3 inch or 8mm. Tighten the knobs.

 NOTE! Make sure that the water pump wheel is placed centred over the belt.
- 21. Put the belt cover back on and tighten the 2 screws.





Replace blade shaft bearings



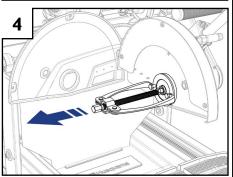






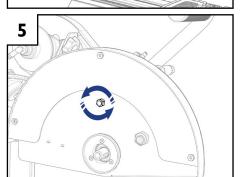


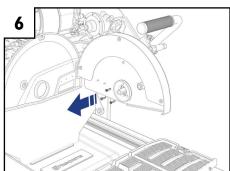




First see Replacing Belt and pulleys (p. 9)

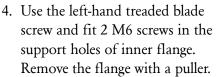
- 1. Remove the 3 screws to open the blade guard.
- 2. Lock the rotation of the blade shaft by using a 7/32 inch or 5,5mm pin in the belt pulley stop hole.

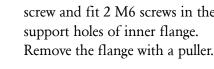


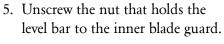


3. Remove the blade screw and outer flange.

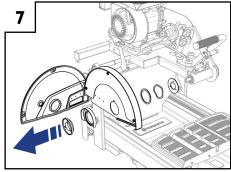
NOTE! The blade screw is lefthand threaded.

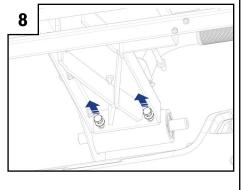


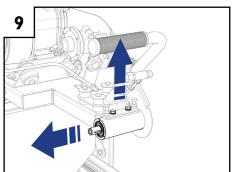


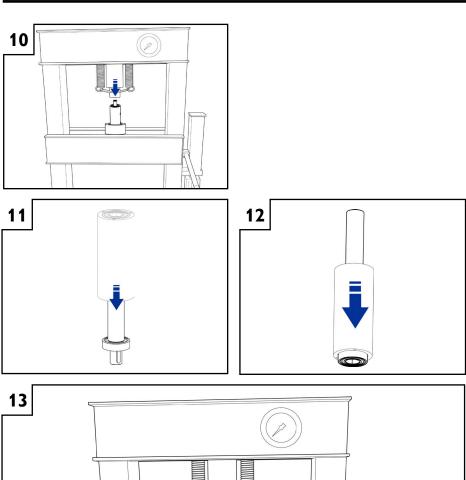


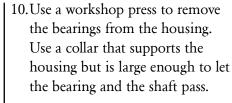
- 6. Remove the 3 hex screws that holds the inner blade guard.
- 7. Remove the blade guard and washers.
- 8. Remove the 2 screws underneath the bearing housing.
- 9. Remove the 2 screws on top of the bearing housing to remove the bearing housing.







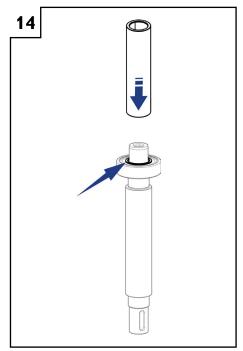


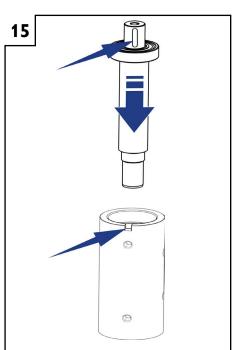


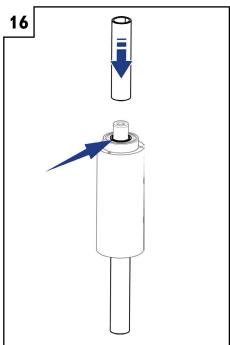
NOTE! Always replace the bearings when the bearing housing have been disassembled since they will get damaged by the disassemble process.

The bearing should have a tighter press fit to the shaft than to the housing.

- 11. Press the shaft and one of the bearings out from the housing.
- 12. The other bearing that sits in the housing should come out easily.
- 13. Remove the bearing on the shaft with a workshop press.







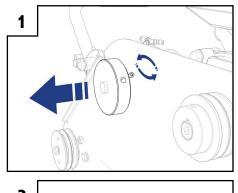
NOTE! When assembling the new bearings, always press against the inner collar of the bearing to not damage it. The inner collar of the bearing has a higher press fit towards the shaft then the outer collar of the bearing has to the bearing housing.

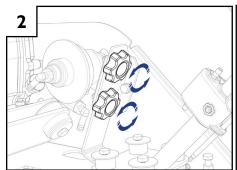
14. Fit one of the new bearings on the shaft. Use a collar that fits on the shaft but small enough to press on the inner collar of the bearing. Press the bearing down with a workshop press.

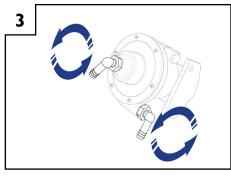
NOTE! When assembling the shaft, make sure that the slotted end of the shaft is on the same side as the slotted end of the housing.

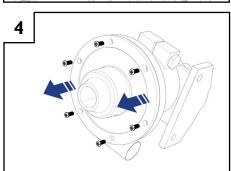
- 15. Use a collar that pushes against the outer bearing collar when pressing the shaft and bearing down into the housing.
- 16. To fit the bearing on the opposite side of the housing, use collars from both sides of the housing that presses agains the inner bearing collars.

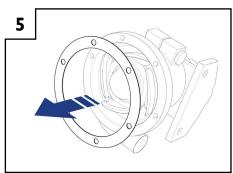
Reverse rest of the steps for assembly. Grease the plastic washers when assembling the inner blade guard.

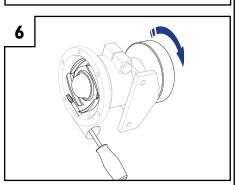


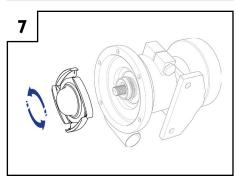




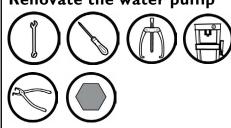








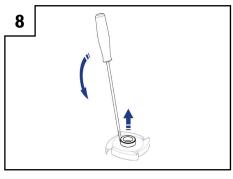
Renovate the water pump

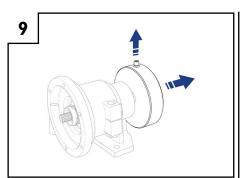


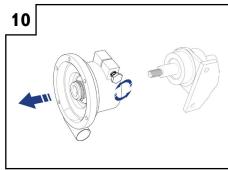
First see Replacing Belt and pulleys (p. 9)

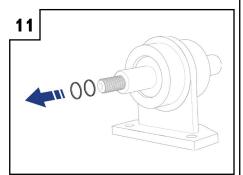
NOTE! Always replace all parts in the renovation kit when disassembling the water pump. Sealing, gasket, washers, impeller and the bearings with the shaft.

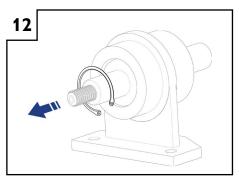
- 1. Loosen the set screw and remove the water pump pulley. Use a puller if necessary.
- 2. Remove the water pump from its position by removing the two knobs.
- 3. Remove the 2 water connections.
- 4. Remove the 6 screws to split the water pump housing.
- 5. Remove the gasket. A new gasket is supplied with the pump renovation kit.
- 6. Remove the impeller by first reattaching the water pump belt wheel to get more power. Then lock the impeller with a screwdriver through the water outlet.
- 7. Unscrew the impeller by hand. The impeller is right-hand threaded.

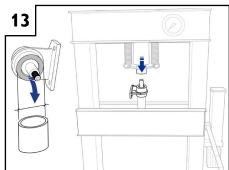


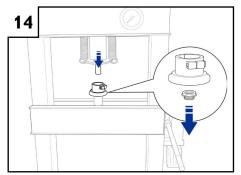








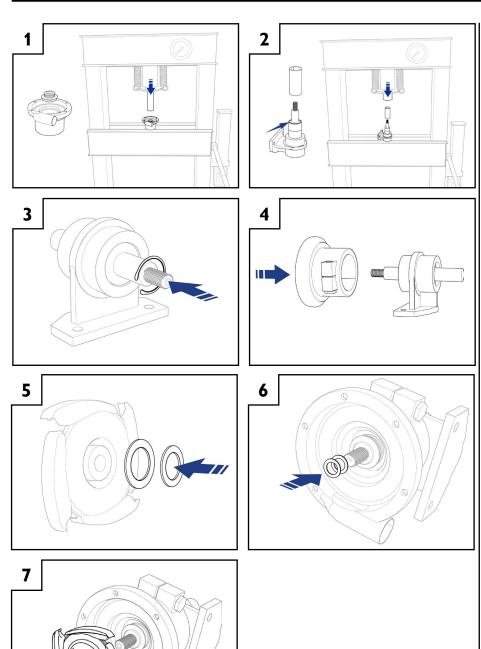




- 8. Remove the seal in the impeller by using a screwdriver or a knife.
- Loosen the set screw and remove the water pump belt pulley.
 It might be necessary to use a puller.
- 10. Loosen the sscrew on the water pump housing and separate the water pump housing from the bearing housing.
- 11. Remove the 2 washers from the pump shaft. These are supplied with the pump renovation kit.
- 12. Remove the circlip from the bearing housing.
- 13. Remove the bearing and shaft by using a workshop press.

 Use a collar of the right dimension against the housing as an anvil when pressing.

 The bearings and shaft are fitted together when supplied with the pump renovation kit.
- 14. Remove the spring-loaded sealing from the water pump housing by using a workshop press.





First see Renovate the water pump (p. 15)

NOTE! Always replace all parts in the renovation kit when disassembling the water pump. Sealing, gasket, washers, impeller and the bearings with the shaft.

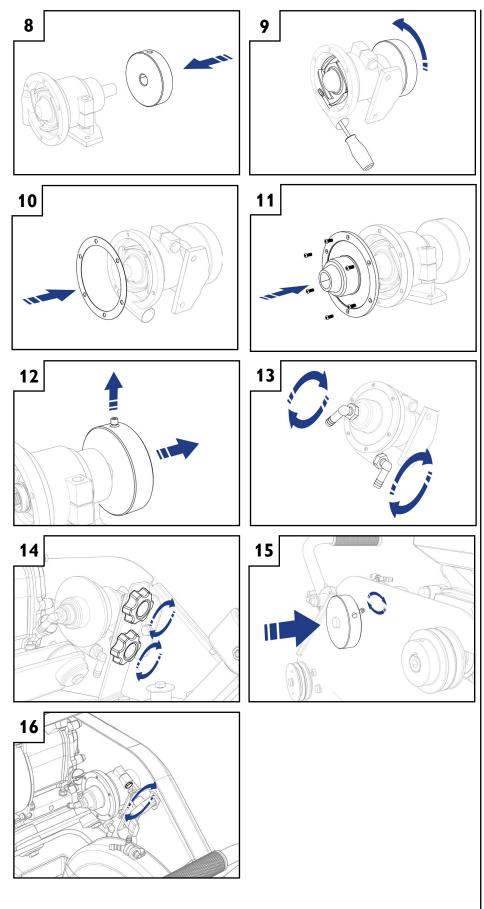
- 1. Use a workshop press to fit the new spring loaded sealing in the water pump housing. Use a collar that presses against the outer metal parts of the sealing.
- 2. Use a workshop press to fit the new shaft with bearing in the pump housing. The belt pulley side of the shaft shall go in first.

NOTE! When assembling the new shaft and bearings, always press on the outer collar of the bearings to not damage them.

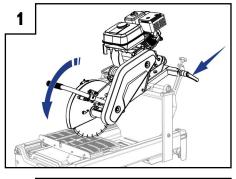
- 3. Insert the circlip into the bearing housing.
- 4. Put the bearing housing and the water pump housing together.

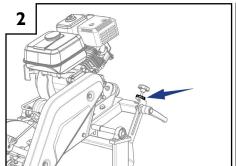
NOTE! Do not tighten the screw until the water pump is mounted to the saw to get adjustability of the hose connections.

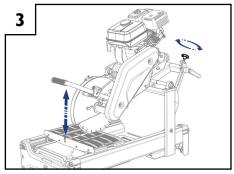
- 5. Assemble the two part seal for the impeller. The plastic washer has a groove on one side that goes into the rubber seal. The wear face should be flat.
- 6. Fit the 2 new washers on the impeller shaft.
- 7. Mount the new impeller.

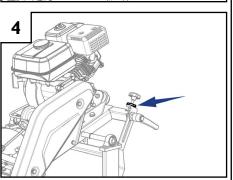


- 8. Mount the belt pulley to the shaft and tighten the set screw.
- Use a screwdriver to lock the impeller through the water outlet and tighten it by hand force with help from the belt pulley.
 NOTE! Check that the impeller rotates freely without friction and noise.
- 10. Fit the new gasket.
- 11. Assemble the water housing cap and tighten the 6 screws equal.
- 12. Remove the belt pulley again.
- 13. Mount the 2 hose connections to the water pump.
- 14. Mount the water pump on the saw with the 2 knobs.
- 15. Mount the belt pulley and tighten the set screw.
- 16. Tighten the screw on the water pump between the water housing and bearing housing when the hose connections are in a good position.



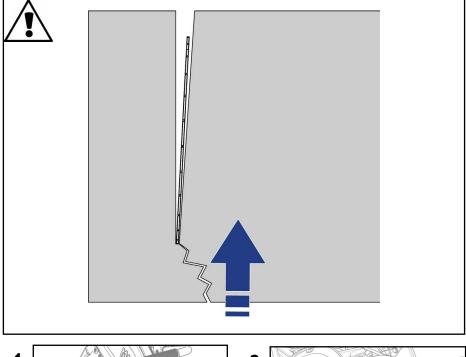


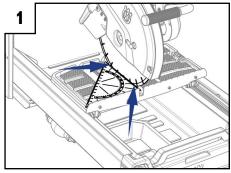


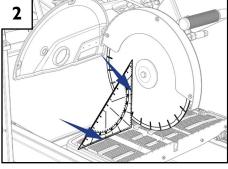


Adjust the blade depth

- 1. Loosen the locking lever for depth adjustment and lower the blade to its lowest position.
- 2. Loosen the lock nut on the depth adjustment knob.
- 3. Adjust the depth adjustment knob until the blade is as deep as possible without touching the cart
- 4. Tighten the nut on the depth adjustment knob.





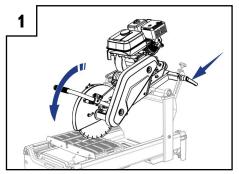


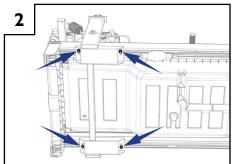
Check the blade alignment.

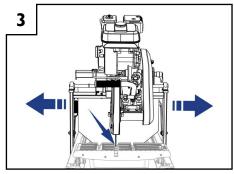


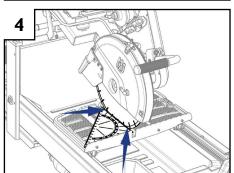
NOTE! If the tiles cracks at the end of a cut the blade is most likely not aligned properly.

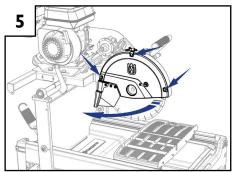
- 1. Check with a set square or an angel if the blade is perpendicular to the conveyor cart anvil and in centre of the cutting slot. Hold the set square against 2 points of the cutting surface on the blade to get a reference.
- 2. Use an angel to verify that the blade is perpendicular to the conveyor cart surface. Hold the set-square against the cart surface and against two points of the blade to get a reference.

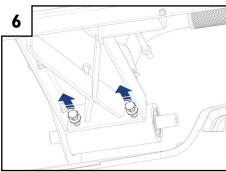


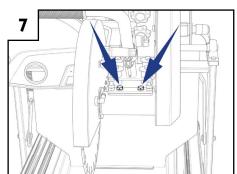


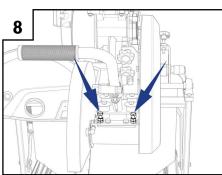


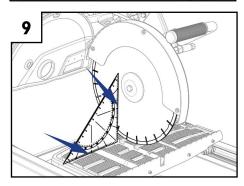












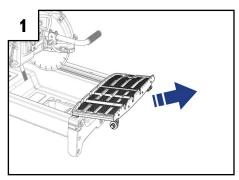
Aligning the blade

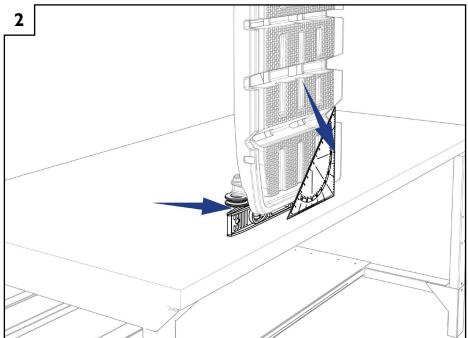
First see Check the blade alignment. (p. 19)





- 1. Set the saw blade in a low position to get a good weight balance of the saw head during the adjustment.
- 2. Loosen the 4 screws underneath the frame that holds the saw head.
- 3. Move the saw head sideways until the blade is in the middle of the cutting slot on the conveyor cart.
- 4. Adjust the saw head until the blade is perpendicular to the conveyor cart anvil. Then tighten the 4 screws underneath the frame again.
- 5. To set the blade perpendicular to the conveyor cart surface: open the blade guard to be able to put an angel against the blade.
- 6. Loosen the 2 screws underneath the bearing housing.
- 7. Loosen the 2 screws on top of the bearing housing.
- 8. Use the adjustments screws for the bearing housing and lock their positions with the locking nuts.
- 9. Make sure the blade is perpendicular to the conveyor cart surface with an angel before tightening all bearing housings screws again.





Measure/Adjust the Conveyor Cart Wheel Traction







- 1. Remove the conveyor cart from the frame.
- 2. Ensure that the conveyor cart wheels are perpendicular to the conveyor cart anvil as in the illustration to the left.

If NOT, take one of the following actions:

- Replace one of the conveyor cart wheels and check the perpendicularity again.
- Shims one of the conveyor cart wheels to adjust its side position.



www.husqvarnacp.com

115 86 51-29 English