



scheppach HM80L Undercut Mitre Saw Instruction Manual

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Only for EU countries.

Do not dispose of electric tools together with household waste material! In observance of European directive 2012/19/EU on wasted electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

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Explanation of symbols on the machine

	Read and comply with the user manual and the safety notices before commissioning the machine!
	Wear safety goggles
	Use hearing protection!
	Wear breathing protection if there is dust!
	Warning! Risk of injury! Do not touch the moving saw blade!
	Protection rating II (double insulated)
	Important! Laser radiation

Introduction

MANUFACTURER

scheppach
 Fabrikation von Holzbearbeitungsmaschine GmbH
 Günzburger Straße 69
 D-89335 Ichenhausen

NOTE

According to the applicable product liability laws, the manufacturer of the device does not assume liability for damages to the product or damages caused by the product that occurs due to:

- Improper handling,
- Non-compliance of the operating instructions,
- Repairs by third parties, not by authorized service technicians,
- Installation and replacement of non-original spare parts,
- Application other than specified,
- A breakdown of the electrical system that occurs due to the non-compliance of the electric regulations and VDE regulations 0100, DIN 57113 / VDE0113.

WE RECOMMEND

Read through the complete text in the operating instructions before installing and commissioning the device. The operating instructions are intended to help the user to become familiar with the machine and take advantage of its application possibilities in accordance with the recommendations. The operating instructions contain important information on how to operate the machine safely, professionally and economically, how to avoid danger, costly repairs, reduce downtimes and how to increase reliability and service life of the machine.

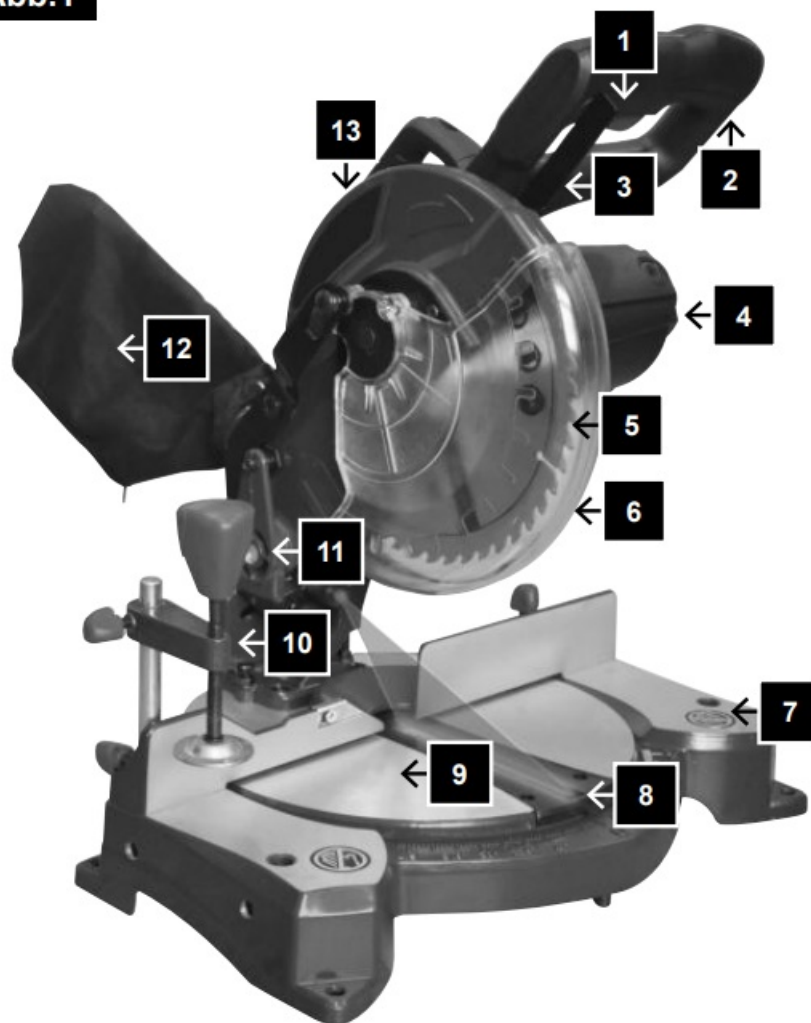
In addition to the safety regulations in the operating instructions, you have to meet the applicable regulations that apply for the operation of the machine in your country. Keep the operating instructions package with the machine at all times and store it in a plastic cover to protect it from dirt and moisture. Read the instruction manual each time before operating the machine and carefully follow its information. The machine can only be operated by persons who were instructed concerning the operation of the machine and who are informed about the associated dangers. The minimum age requirement must be complied with.

In addition to the safety notes contained in the present operating instructions and the special regulations of your country, the generally recognized technical rules for the operation of machines must be observed.

Legend of Fig. 1

1. Start button
2. Handle
3. Locking lever
4. Motor
5. Saw blade
6. Moving saw blade guard
7. Base
8. Table insert
9. Rotary table
10. Workpiece clamp
11. Housing / base joint
12. Dust bag
13. Stationary saw blade guard

Abb.1



HM80L

Scope of delivery

Mitre saw

Dust bag

Workpiece clamp

Tool for changing the saw blade – 6mm Allen key

	Tool for stop rail – 3mm Allen key
	2 work piece supports
	Support stand
	2 batteries (AAA)
	2 carbon brushes
	Operating instructions
Technical Data	
Dimensions L x W x H mm	690 x 550 x 440
Rotary table ø mm	385 x 150
Table height mm	55
Saw blade Ø mm	210/30/2,6/1,6 WZ 24
Speed rpm	5000
Cutting speed m/s	55
Pivot range	2 x 45°

Tilt angle	45°	
Double mitre 45° x 45°	left	
Catch positions	45°, 30°, 22,5°, 15°, 0°, 15°, 22,5°, 30°, 45°	
Weight kg	7,7	
Cross-cutting data		
Max. cut depth 90°/45°	60 / 35 mm	
90°/90°	120 x 60 mm	
90°/45°	80 x 60 mm	
45°/90°	120 x 35 mm	
45°/45°	80 x 35 mm	
Drive		
Motor V/Hz	220-240 / 50	
Rated input W	S6 25%*	1500W

*S6, continuous operation periodic duty. Identical duty cycles with a period at load followed by a period at no load. Running time 10 minutes; duty cycle is 25% of the running time.

The work piece must have a minimum height of 3mm and a minimum width of 10 mm. Make sure that the workpiece is always secured with the clamping device.

Information about noise development

The noise levels of this machine during operation are as follows:

L_{PA} : 99.6dB(A) $K=3$ dB(A)

L_{WA} : 112.6dB(A) $K=3$ dB(A)

Wear hearing protection.

The effects of noise can cause a loss of hearing. Total vibration values (vector sum – three directions) determined in accordance with EN 61029.

Proper use

The mitre saw is used for the cutting of wood and plastic, according to the machine size.

Warning! The supplied saw blade is only intended for the sawing of wood! Do not use this blade for the sawing of plastic!

The saw is not suitable for the cutting of firewood. The machine may only be used in the intended manner.

Only suitable saw blades may be used for the machine. The use of any type of cutting wheels is prohibited.

An element of the intended use is also the observance of the safety instructions, as well as the assembly instructions and operating information in the operating manual.

Persons who operate and maintain the machine must be familiar with the manual and must be informed about potential dangers.

Any use beyond this is improper. The user/operator, not the manufacturer, is responsible for damages or injuries of any type resulting from this.

In addition, the applicable accident prevention regulations must be strictly observed.

Other general occupational health and safety-related rules and regulations must be observed.

The liability of the manufacturer and resulting damages are excluded in the event of modifications of the machine.

Despite use as intended, specific risk factors cannot be entirely eliminated. Due to the design and layout of the machine, the following risks remain:

- Contact with the saw blade in the non-covered saw area.
- Reaching into the running saw blade (cutting injury).
- Kick-back of workpieces and workpiece parts.
- Saw blade breakage.
- Ejection of faulty carbide parts of the saw blade.
- Hearing damage when the necessary hearing protection is not used.
- Harmful emissions of wood dusts during use in enclosed areas

Please observe that our equipment was not designed with the intention of use for commercial or industrial purposes. We assume no guarantee if the equipment is used in commercial or industrial applications, or for equivalent work.

Important information

Attention! The following basic safety measures must be observed when using electric tools for protection against

electric shock, and the risk of injury and fire. Read all these notices before using the electric tool and keep the safety instructions for later reference.

Safe work

1. Keep the work area orderly
 - Disorder in the work area can lead to accidents.
2. Take environmental influences into account
 - Do not expose electric tools to rain.
 - Do not use electric tools in a damp or wet environment.
 - Make sure that the work area is well-illuminated.
 - Do not use electric tools where there is a risk of fire or explosion.
3. Protect yourself from electric shock
 - Avoid physical contact with earthed parts (e.g. pipes, radiators, electric ranges, cooling units).
4. Keep other persons away
 - Do not allow other persons, especially children, to touch the electric tool or the cable. Keep them away from your work area.
 - The operating person must be at least 18 years of age; trainees must be at least 16 years, however only under supervision.
5. Securely store unused electric tools
 - Unused electric tools should be stored in a dry, elevated or closed location out of the reach of children.
6. Do not overload your electric tool
 - They work better and more safely in the specified output range.
7. Use the correct electric tool
 - Do not use low-output electric tools for heavy work.
 - Do not use the electric tool for purposes for which it is not intended. For example, do not use handheld circular saws for the cutting of branches or logs.
 - Do not use the electric tool to cut firewood.
8. Wear suitable clothing
 - Do not wear wide clothing or jewellery, which can become entangled in moving parts.
 - When working outdoors, anti-slip footwear is recommended.
 - Tie long hair back in a hair net.
9. Use protective equipment
 - Wear protective goggles.
 - Wear a mask when carrying out dust-creating work.
10. Connect the dust extraction device
 - If connections for dust extraction and a collecting device are present, make sure that they are connected and used properly.
 - Operation in enclosed areas is only permitted with a suitable extraction system.
11. Do not use the cable for purposes for which it is not intended
 - Do not use the cable to pull the plug out of the outlet. Protect the cable from heat, oil and sharp edges.
12. Secure the workpiece
 - Use the clamping devices or a vice to hold the workpiece in place. In this manner, it is held more securely than with your hand.

- An additional support is necessary for long workpieces (table, trestle, etc.) in order to prevent the machine from tipping over.
 - Always press the workpiece firmly against the working plate and stop in order to prevent bouncing and twisting of the workpiece.
13. Avoid abnormal posture
- Make sure that you have secure footing and always maintain your balance.
 - Avoid awkward hand positions in which a sudden slip could cause one or both hands to come into contact with the saw blade.
14. Take care of your tools
- Keep cutting tools sharp and clean in order to be able to work better and more safely.
 - Follow the instructions for lubrication and for tool replacement.
 - Check the connection cable of the electric tool regularly and have it replaced by a recognised specialist when damaged.
 - Check extension cables regularly and replace them when damaged.
 - Keep the handle dry, clean and free of oil and grease.
15. Pull the plug out of the outlet
- Never remove loose splinters, chips or jammed wood pieces from the running saw blade.
 - During non-use of the electric tool or prior to maintenance and when replacing tools such as saw blades, bits, milling heads.
16. Do not leave a tool key inserted
- Before switching on, make sure that keys and adjusting tools are removed.
17. Avoid inadvertent starting
- Make sure that the switch is switched off when plugging the plug into an outlet.
18. Use extension cables for outdoors
- Only use approved and appropriately identified extension cables for use outdoors.
 - Only use cable reels in the unrolled state.
19. Remain attentive
- Pay attention to what you are doing. Remain sensible when working. Do not use the electric tool when you are distracted.
20. Check the electric tool for potential damage
- Protective devices and other parts must be carefully inspected to ensure that they are fault-free and function as intended prior to continued use of the electric tool.
 - Check whether the moving parts function faultlessly and do not jam or whether parts are damaged. All parts must be correctly mounted and all conditions must be fulfilled to ensure faultfree operation of the electric tool.
 - The moving protective hood may not be fixed in the open position.
 - Damaged protective devices and parts must be properly repaired or replaced by a recognised workshop, insofar as nothing different is specified in the operating manual.
 - Damaged switches must be replaced at a customer service workshop.
 - Do not use any faulty or damaged connection cables.
 - Do not use any electric tool on which the switch cannot be switched on and off.
21. ATTENTION!
- Exercise elevated caution for double mitre cuts.
22. ATTENTION!
- The use of other insertion tools and other accessories can entail a risk of injury.

23. Have your electric tool repaired by a qualified electrician

- This electric tool conforms to the applicable safety regulations. Repairs may only be performed by an electrician using original spare parts. Otherwise accidents can occur.

Additional safety instructions

1. Safety precautions

- Warning! Do not use damaged or deformed saw blades.
- Replace a worn table insert.
- Only use saw blades recommended by the manufacturer which conform to EN 847-1.
- Make sure that a suitable saw blade for the material to be cut is selected.
- Wear suitable personal protective equipment. This includes:
 - Hearing protection to avoid the risk of becoming hearing impaired,
 - Respiratory protection to avoid the risk of inhaling harmful dust,
 - Wear gloves when handling saw blades and rough materials. Carry saw blades in a container whenever practical.
- Wear goggles. Sparks generated during work or splinters, chippings and dust coming from the device can lead to loss of eyesight.
- Connect a dust collecting device to the electric tool when sawing wood. The emission of dust is influenced, among other things, by the type of material to be processed, the significance of local separation (collection or source) and the correct setting of the hood/guide plates/guides.
- Do not use saw blades made of high-speed alloy steel (HSS steel).

2. Maintenance and repair

- Pull out the mains plug for any adjustment or repair tasks.
- The generation of noise is influenced by various factors, including the characteristics of saw blades, condition of saw blade and electric tool. Use saw blades which were designed for reduced noise development, insofar as possible. Maintain the electric tool and tool attachments regularly and if necessary, initiate repairs in order to reduce noise.
- Report faults on the electric tool, protective devices or the tool attachment to the person responsible for safety as soon as they are discovered.

3. Safe work

- Only use saw blades for which the maximum permissible speed is not lower than the maximum spindle speed of table saws and which are suitable for the material to be cut.
- Make sure that the saw blade does not touch the rotary table in any position by pulling out the mains plug and rotating the saw blade by hand in the 45° and 90° position. If necessary, readjust the saw head.
- When transporting the electric tool, only use the transport devices. Never use the protective devices for handling or transport.
- Make sure that the lower part of the saw blade is covered during transport, e.g. by the protective device.
- Be sure to only use spacers and spindle rings specified by the manufacturer as suitable for the intended purpose.
- The floor around the machine must be level, clean and free of loose particles, such as chips and cutting residues.
- Do not remove any cutting residues or other parts of workpieces from the cutting zone while the machine is

running and the saw unit is not at rest.

- Make sure that the machine is always secured on a workbench or a table if at all possible.
- Support long workpieces (e.g. with a roller table) to prevent them sagging at the end of a cut.
- Make sure you select the appropriate saw blade for the material you are cutting.

Warning! Never use the saw for cutting material other than that specified by the manufacturer.

- Use the saw only when the protective devices are functional, they are in good condition and in the proper position.
- Ensure that the rotation speed indicated on the saw blade is the same as the rotation speed indicated on the saw.
- The workpiece must always be clamped at the saw table.
- Before each cutting operation make sure that the machine is safe.

Warning! This electric tool generates an electromagnetic field during operation. This field can impair active or passive medical implants under certain conditions. In order to prevent the risk of serious or deadly injuries, we recommend that persons with medical implants consult with their physician and the manufacturer of the medical implant prior to operating the electric tool.

SAFETY INSTRUCTIONS FOR THE HANDLING OF SAW BLADES

1. Only use insertion tools if you have mastered their use.
2. Observe the maximum speed. The maximum speed specified on the insertion tool may not be exceeded. If specified, observe the speed range.
3. Observe the motor / saw blade direction of rotation.
4. Do not use any insertion tools with cracks. Sort out cracked insertion tools. Repairs are not permitted.
5. Clean grease, oil and water off of the clamping surfaces.
6. Do not use any loose reducing rings or bushes for the reducing of holes on saw blades.
7. Make sure that fixed reducer rings for securing the insertion tool have the same diameter and have at least 1/3 of the cutting diameter.
8. Make sure that fixed reducer rings are parallel to each other.
9. Handle insertion tool with caution. They are ideally stored in the originally package or special containers. Wear protective gloves in order to improve grip and to further reduce the risk of injury.
10. Prior to the use of insertion tools, make sure that all protective devices are properly fastened.
11. Prior to use, make sure that the insertion tool meets the technical requirements of this electric tool and is properly fastened.
12. Only use the supplied saw blade for cutting wood, never for the processing of metals.



Attention: Laser radiation Do not stare into the beam Class 2 laser

Protect yourself and you environment from accidents using suitable precautionary measures!

- Do not look directly into the laser beam with unprotected eyes.
- Never look into the path of the beam.

- Never point the laser beam towards reflecting surfaces and persons or animals. Even a laser beam with a low output can cause damage to the eyes.
- Caution – methods other than those specified here can result in dangerous radiation exposure.
- Never open the laser module. Unexpected exposure to the beam can occur.
- If the mitre saw is not used for an extended period of time, the batteries should be removed.
- The laser may not be replaced with a different type of laser.
- Repairs of the laser may only be carried out by the laser manufacturer or an authorised representative.

Safety instructions for handling batteries

1. Always make sure that the batteries are inserted with the correct polarity (+ and –), as indicated on the battery.
2. Do not short-circuit batteries.
3. Do not charge non-rechargeable batteries.
4. Do not overcharge batteries!
5. Do not mix old and new batteries or batteries of different types or manufacturers! Replace an entire set of batteries at the same time.
6. Immediately remove used batteries from the device and dispose of them properly! Do not dispose batteries with household waste. Defective or used batteries must be recycled according to Directive 2006/66 / EC. Give back batteries and / or the device has been offered to the collective facilities. About disposal facilities you can inform by your municipal or city government.
7. Do not allow batteries to heat up!
8. Do not weld or solder directly on batteries!
9. Do not dismantle batteries!
10. Do not allow batteries to deform!
11. Do not throw batteries into fire!
12. Keep batteries out of the reach of children.
13. Do not allow children to replace batteries without supervision!
14. Do not keep batteries near fire, ovens or other sources of heat. Do not use batteries in direct sunlight or store them in vehicles in hot weather.
15. Keep unused batteries in the original packaging and keep them away from metal objects. Do not mix unpacked batteries or toss them together! This can lead to a short-circuit of the battery and thus damage, burns or even the risk of fire.
16. Remove batteries from the equipment when it will not be used for an extended period of time, unless it is for emergencies!
17. NEVER handle batteries that have leaked without appropriate protection. If the leaked fluid comes into contact with your skin, the skin in this area should be rinsed off under running water immediately. Always prevent the fluid from coming into contact with the eyes and mouth. In the event of contact, please seek immediate medical attention.
18. Clean the battery contacts and corresponding contacts in the device prior to inserting the batteries.



Residual risks

The machine has been built according to the state of the art and the recognised technical safety requirements. However, individual residual risks can arise during operation.

- Health hazard due to electrical power, with the use of improper electrical connection cables.
- Furthermore, despite all precautions having been met, some non-obvious residual risks may still remain.
- Residual risks can be minimised if the „safety instructions“ and the „Proper use“ are observed along with the whole of the operating instructions.
- Do not load the machine unnecessarily: excessive pressure when sawing will quickly damage the saw blade, which results in reduced output of the machine in the processing and in cut precision.
- When cutting plastic material, please always use clamps: the parts which should be cut must always be fixed between the clamps.
- Avoid accidental starting of the machine: the operating button may not be pressed when inserting the plug in an outlet.
- Use the tool that is recommended in this manual. In doing so, your mitre saw provides optimal performance.
- Hands may never enter the processing zone when the machine is in operation.
- Release the handle button and switch off the machine prior to any operations.

Commissioning

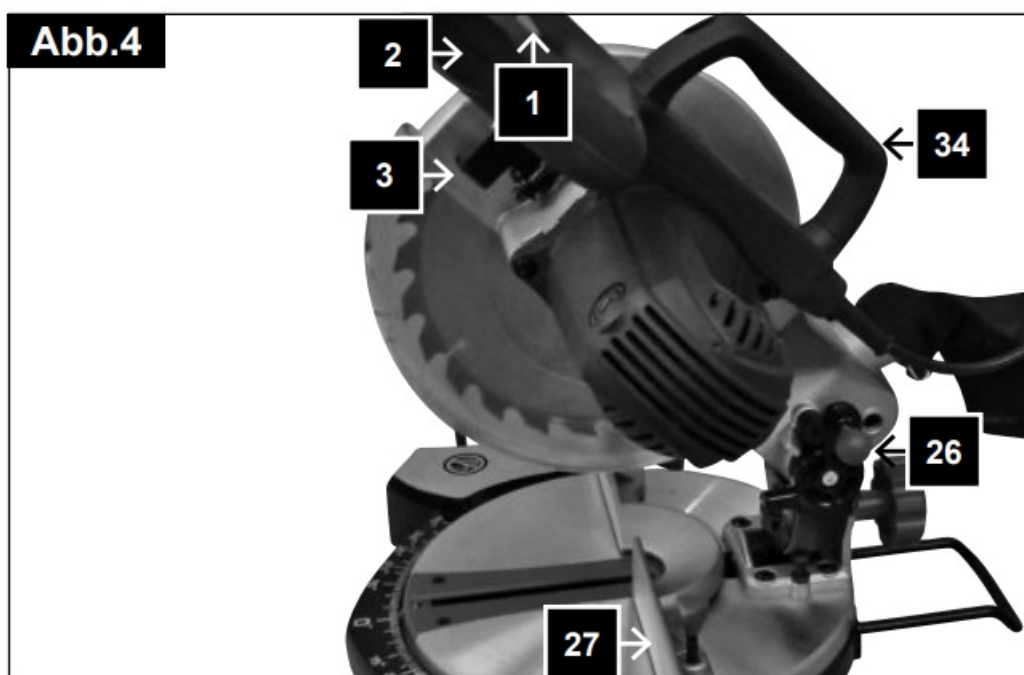
Prior to commissioning, observe the safety instructions in the operating instructions.

REMOVAL FROM THE PACKAGING

Remove the machine from its package, which protects it during transport, without damaging the package in order to be able to use it later for transporting the mitre saw for long-term storage.

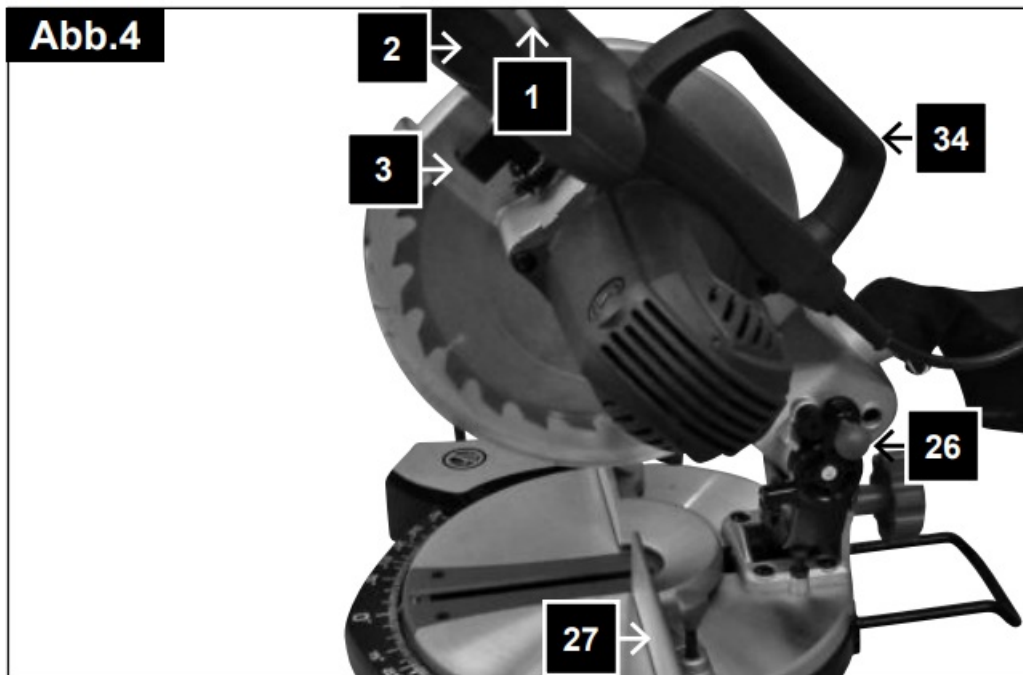
MOVING

Since the mitre saw is relatively small and light, its location can be easily changed, even by a single person. After locking the locking knob (26 – Fig. 4) in the bottom position, lift the mitre saw by the handle (34 – Fig. 4).



TRANSPORT

If the machine must be transported, carry it by the handle (34 – Fig. 4) and place it in the original packaging in which it was supplied. In the process, make sure that it is correctly positioned in the package (see arrows on the package). If possible, the load should be fixed with ropes or securing belts in order to prevent shifting during the transport or parts of the load from falling down.



POSITIONING/WORK STATION

Position the machine on a work bench or on a flat base so that the machine is supported as stably as possible. Make sure that the machine is always secured to a workbench or table if possible. Secure the machine through the holes on the base (7) of the machine by using 4 screws on a workbench, an undercarriage o. eg.. When working with the machine, ergonomic factors must be considered; the ideal height of the work table or the base is reached when the base surface or the upper work surface is 90 to 95 cm above the ground. The positioning of the machine must provide for at least 80 cm of clearance in all directions and in order to allow for cleaning and repair work as well as necessary adjustments in observance of safety conditions and with sufficient room to manoeuvre.

CAUTION: Position the machine in a zone which is suitable in respect to the environmental conditions and lighting. Never forget that the general environmental conditions play an extremely important role in accident prevention.

CONNECTION TO THE POWER SUPPLY

Make sure that the socket is in a good condition. We would like to remind you that the power supply must be connected to a magnetic-thermal circuit breaker which protects all lines from short-circuits and overloading.



Assembly

WARNING! For you own safety, only insert the mains plug in an outlet when all assembly steps have been completed and you have read and understood the safety and operating instructions. Lift the saw out of the packaging and place it on your work bench. (Positioning of the saw on the work bench – see

the next page under „POSITIONING / WORK STATION“)

Installation of the dust bag

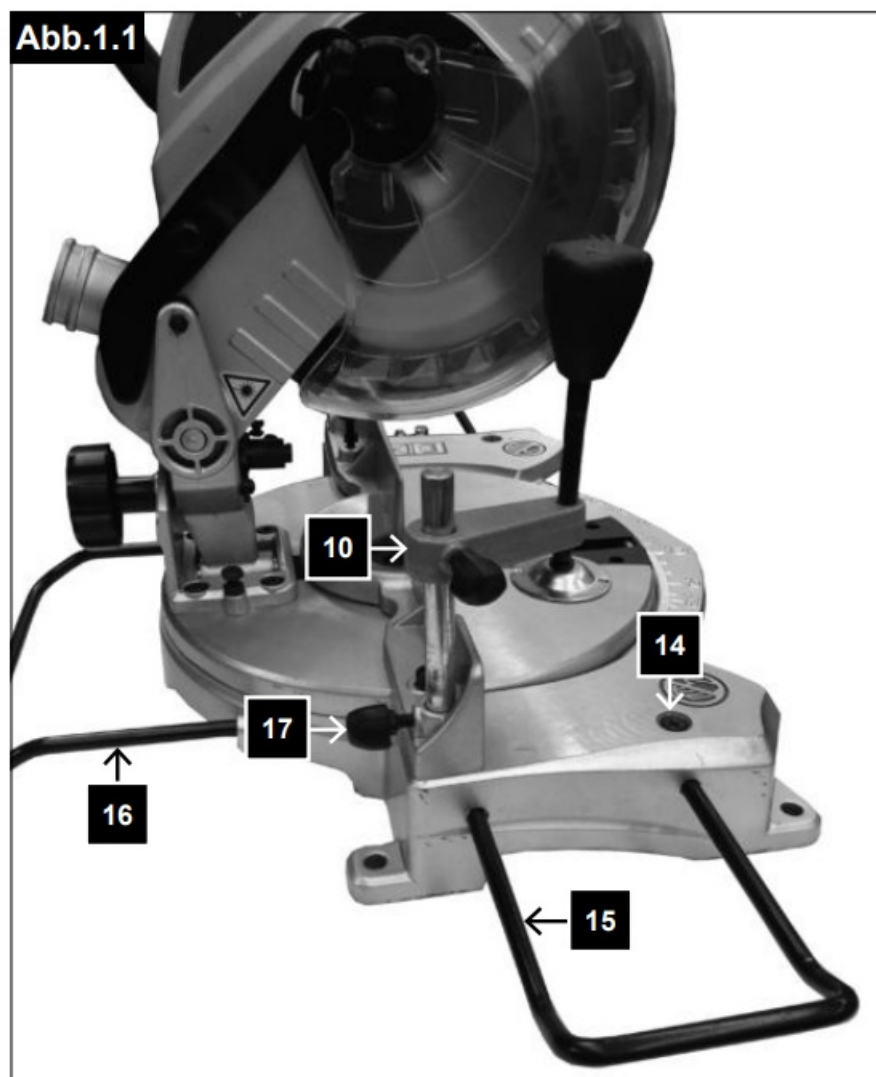
- Squeeze together the metal ring on the dust bag (12) and attach it to the outlet opening in the motor area.

Emptying the dust bag

- By pressing the metal ring wings of the dust bag (12) together the dust bag can be disengaged from the outlet opening.
- Open the zipper of the dust bag and shake the contents into a dustbin.
- Close the zipper and install the dust bag on the machine again as described.

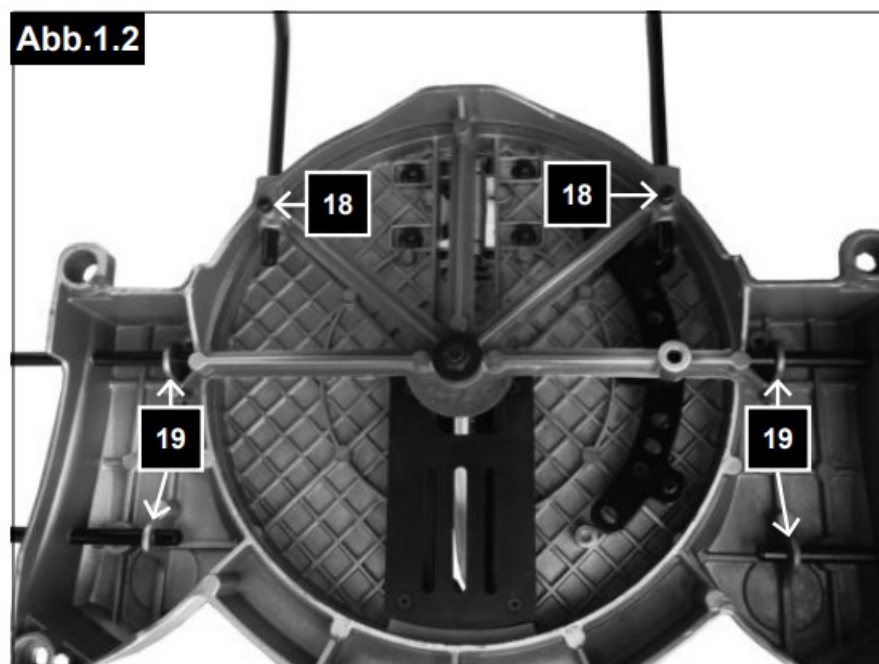
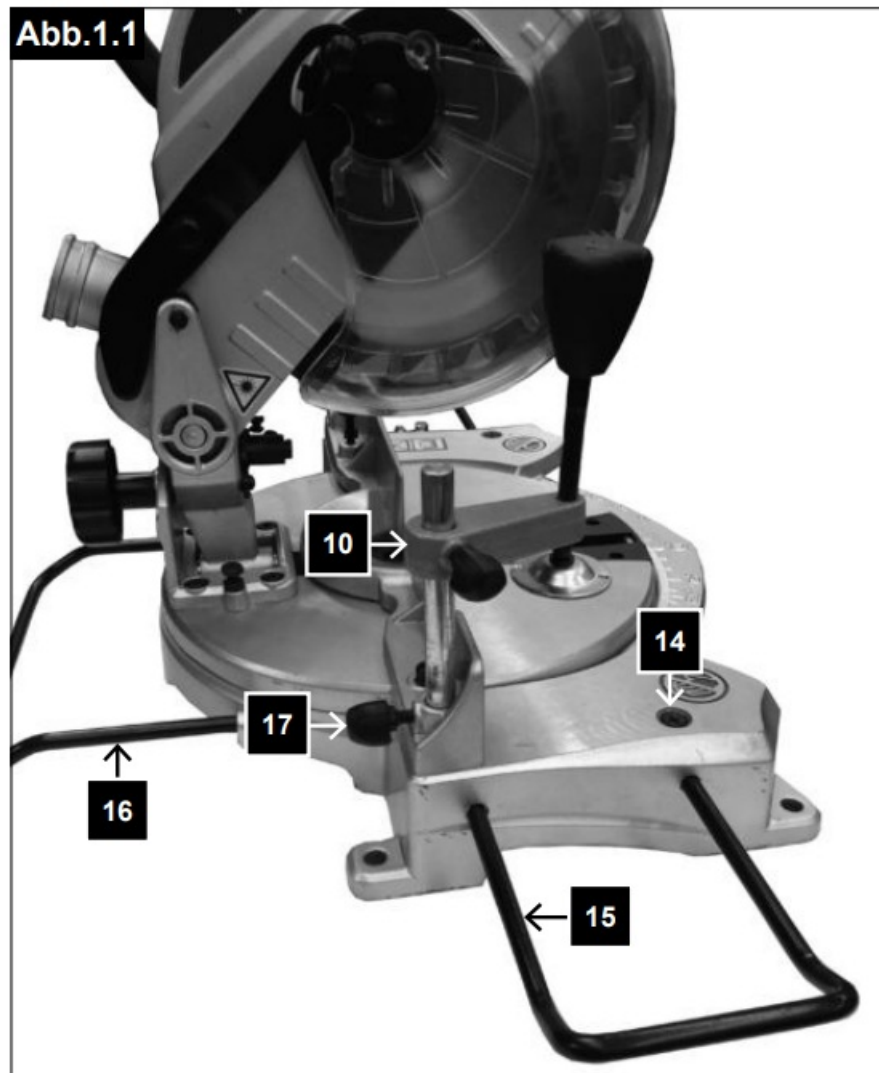
Assembling the work piece clamping device (fig. 1.1)

- Loosen the locking screw (17) and attach the work piece clamping device (10) to the left or right of the fixed saw bench.
- Afterwards, retighten the locking screws (17).



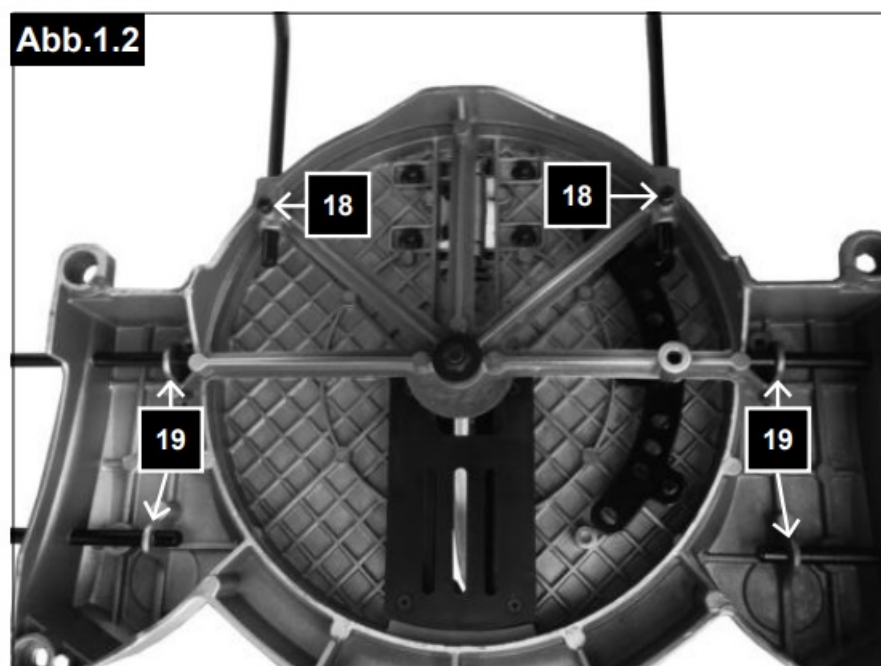
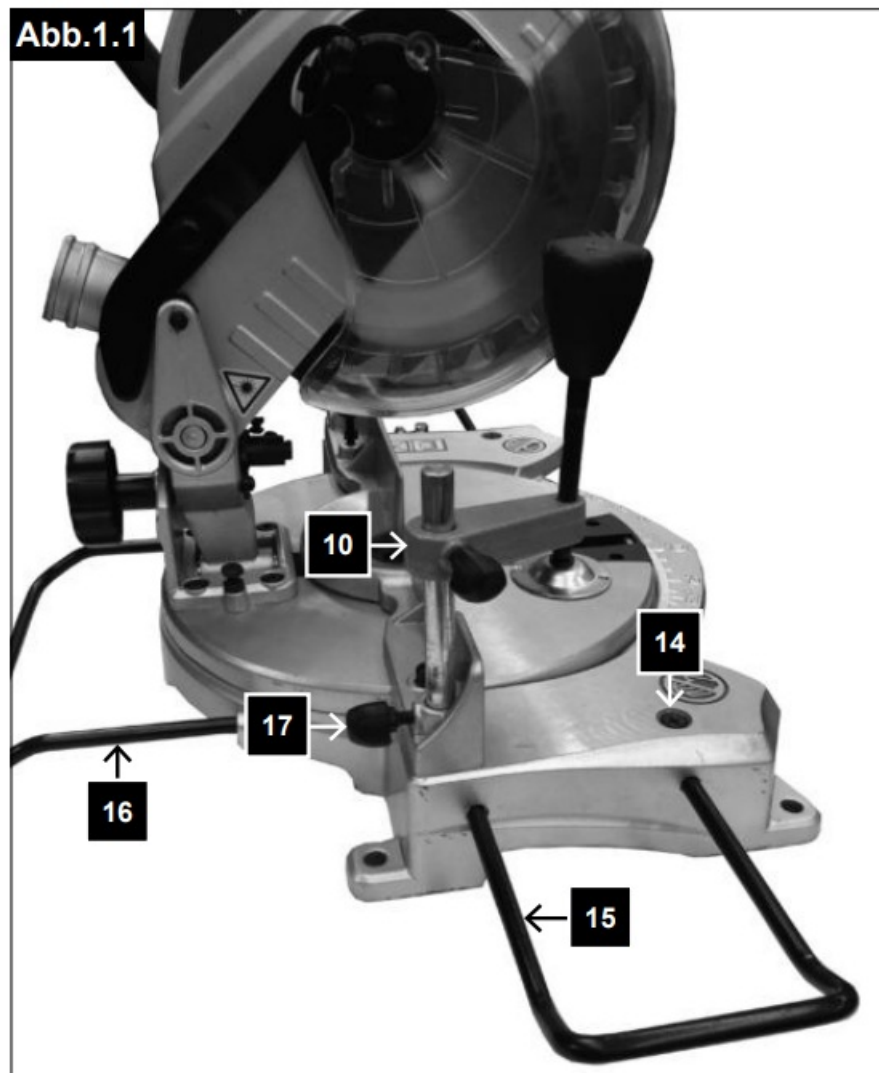
Assembling the work piece supports (fig. 1.1 – 1.2)

- Loosen the cross-head screw (14) and guide the work piece support through the specified hole on the side of the fixed saw bench.
- Make sure that the work piece support (15) is also guided through the two plates (19) on the underneath.
- Afterwards, retighten the cross-head screw (14).
- Repeat this process on the other side.



Assembling the support stand (fig. 1.1 – 1.2)

- Loosen the cross-head screws (18) on the underneath of the saw and guide the support stand (16) through the specified holes on the back of the saw.
- Afterwards, retighten the cross-head screws (18).





Area of application

Intended application possibilities

The machine cuts:

- Wood and materials similar to wood
- Plastic

Unintended application possibilities

The machine is not suitable for:

- Ferritic materials, steel and cast iron, as well as other material types which are not listed, particularly food.
- Mitre saw without guard.
- Materials larger than the specified cutting data:

90°/90°/	120 x 60 mm
90°/45°	80 x 60 mm
45°/90°	120 x 35 mm
45°/45°	80 x 35 mm

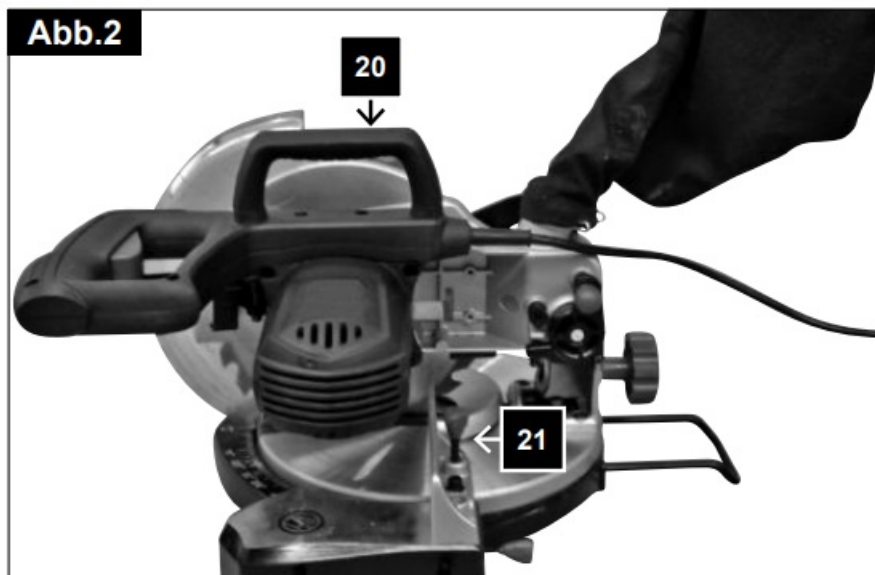
Settings

CROSS-CUTTING

ATTENTION: Before carrying out the following adjustments, please check whether the motor of the machine is switched off.

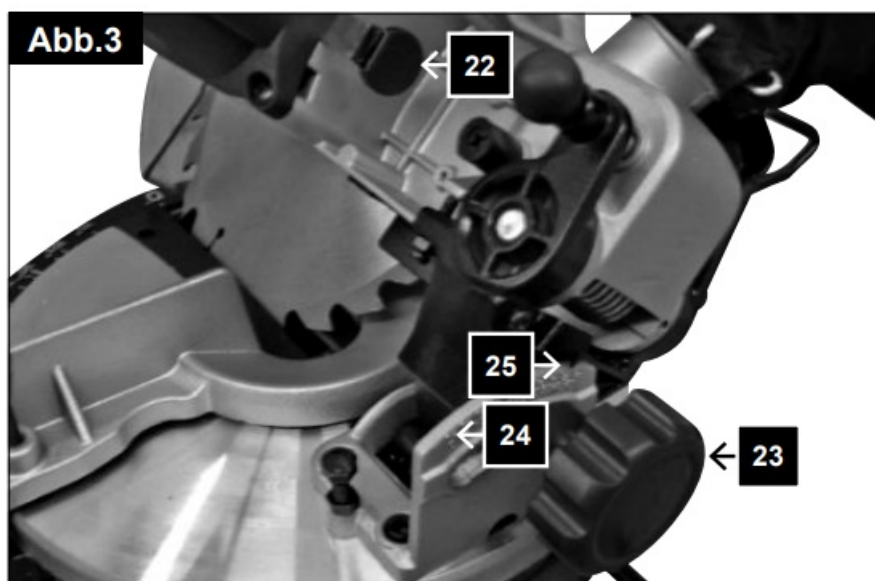
Pivoting the table plate (Fig. 2)

The mitre saw can be pivoted left and right with the rotary table. Exact angle adjustment is possible on the basis of the scale. The angle can be precisely and quickly adjusted from 0° to 45° with locking positions at 15°, 22.5° and 30°. To pivot the rotary table, loosen the set screw (21) and rotate the unit using the handle (20) until the desired angle is reached. Then secure it with the set screw (21).



Tilt of the saw unit (Fig. 3)

The saw unit can be tilted at an angle of up to 45°. Loosen the handle (23) on the rear side of the machine and tilt the unit to the desired angle position according to the scale. The angle can be set on the basis of the scale (24) using the pointer (25). Then the handle must be re-tightened.



Working instructions

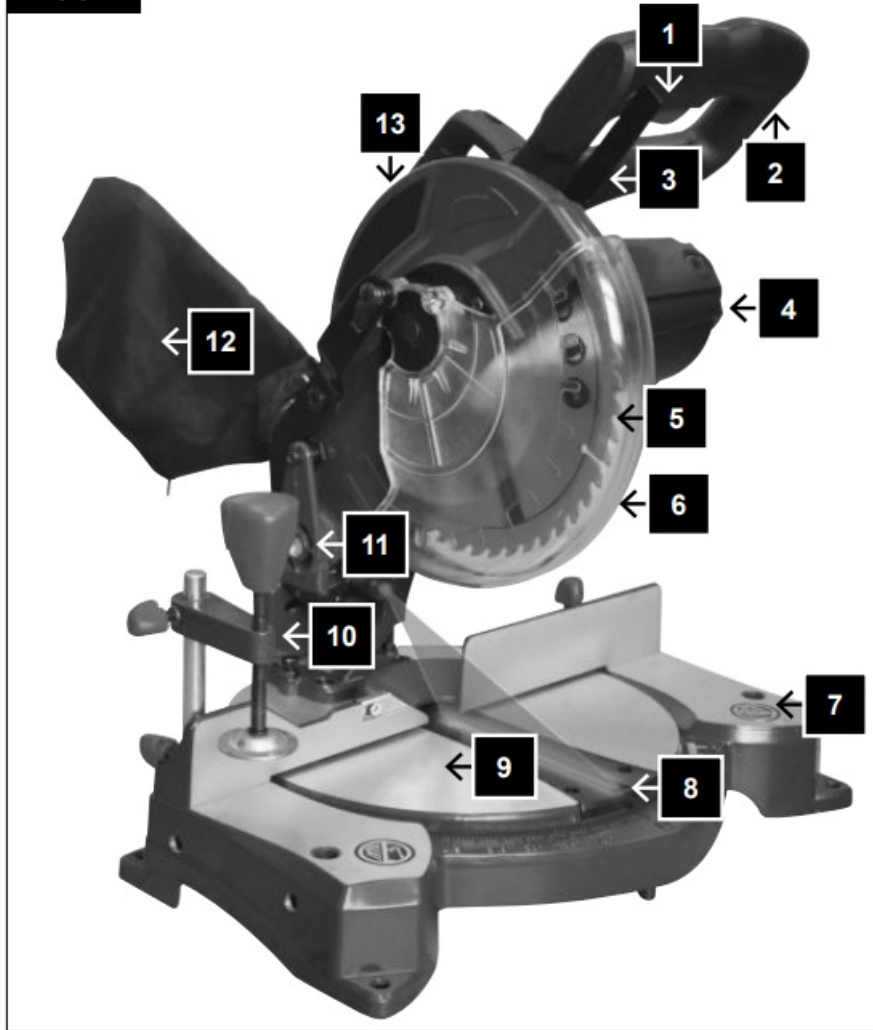
After you have carried out all the tasks described above, you can begin working.

ATTENTION: Always keep your hands away from the cutting zone and never attempt to reach in while cutting.

FIXING A WORKPIECE

Clamp the work piece on the work table with the workpiece clamp (10 – Fig 1) in order to fix it in place.

Abb.1



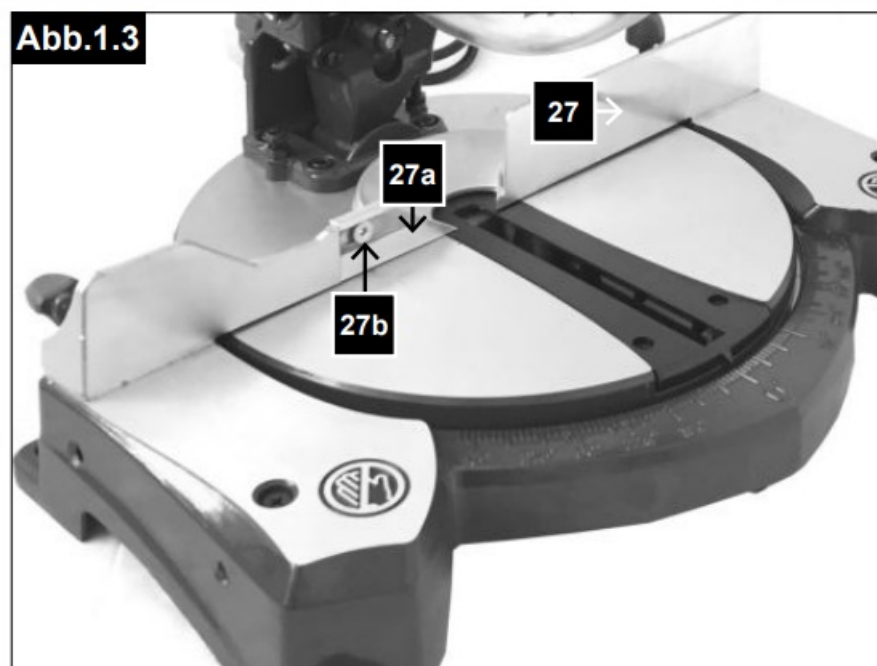
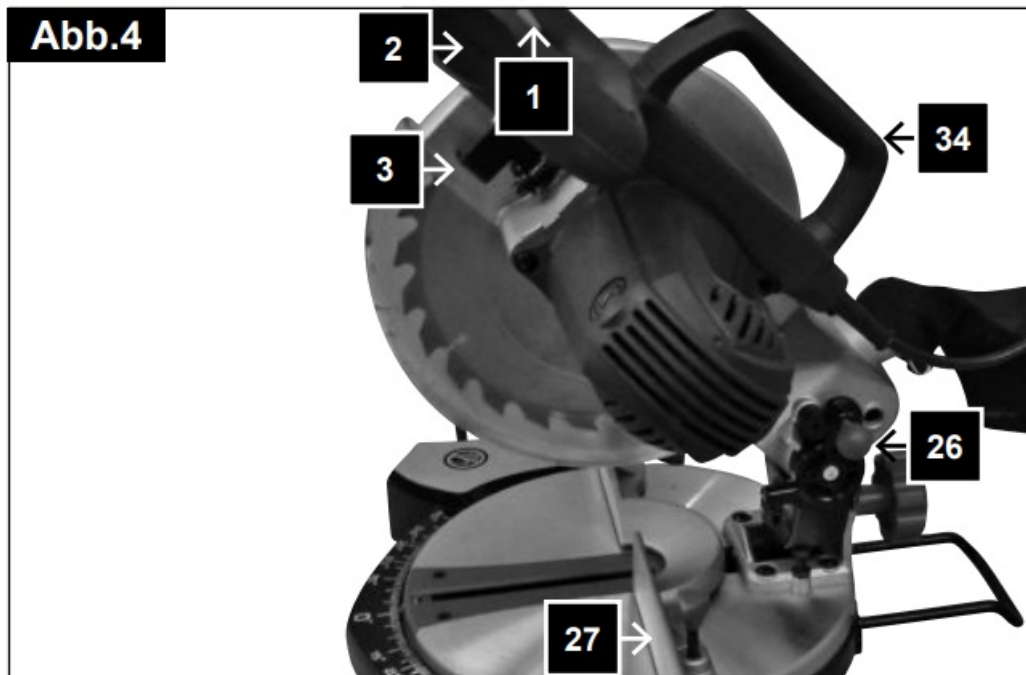
Cross cut 90° and turntable 0° (Fig. 4, 1.3)

Attention! For 90° mitre cuts, the moveable stop rail (27a) must be fixed in the inner position

- Open the set screw (27b) on the moveable stop rail (27a) with an Allen key and push the moveable stop rail (27a) inwards.
- The moveable stop rail (27a) must be locked in a position far enough from the inner position that the distance between the stop rail (27a) and the saw blade (5) is no more than 8 mm.
- Before making the cut, check that no collision could occur between the stop rail (27a) and the saw blade (5).
- Secure the locking lever (27b) again.
- Loosen the locking knob (26).
- Lift the saw unit by the handle (2) until it locks in place in the top position.
- Lock the material with the clamping device (10) on the fixed saw table to prevent the material from moving during the cutting operation.
- Press the workpiece evenly on the stop strips (27); make sure that your hand remains outside the cutting area of the saw blade.
- With your right hand on the handle (2), press the locking lever (3) so that the unit can also be pivoted downward.
- The motor starts when the start button (1) is pressed.

- Slowly bring the saw blade down to the workpiece and cut through it with moderate pressure.
- When the cutting operation is completed, move the machine head back to its upper (home) position and release the ON/OFF button (1).

Attention! The machine executes an upward stroke automatically due to the return spring, i.e. do not release the handle (2) after completing the cut; instead allow the machine head to move upwards slowly whilst applying light counter pressure.



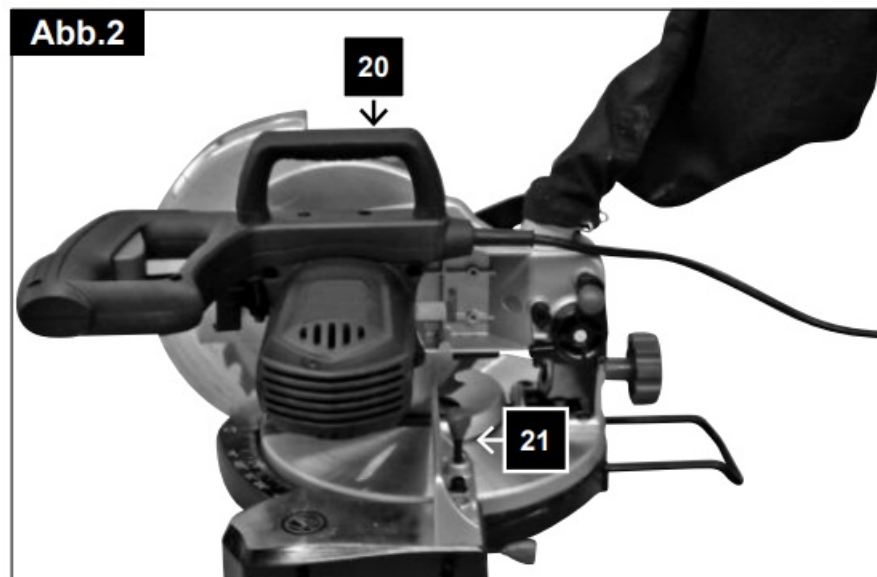
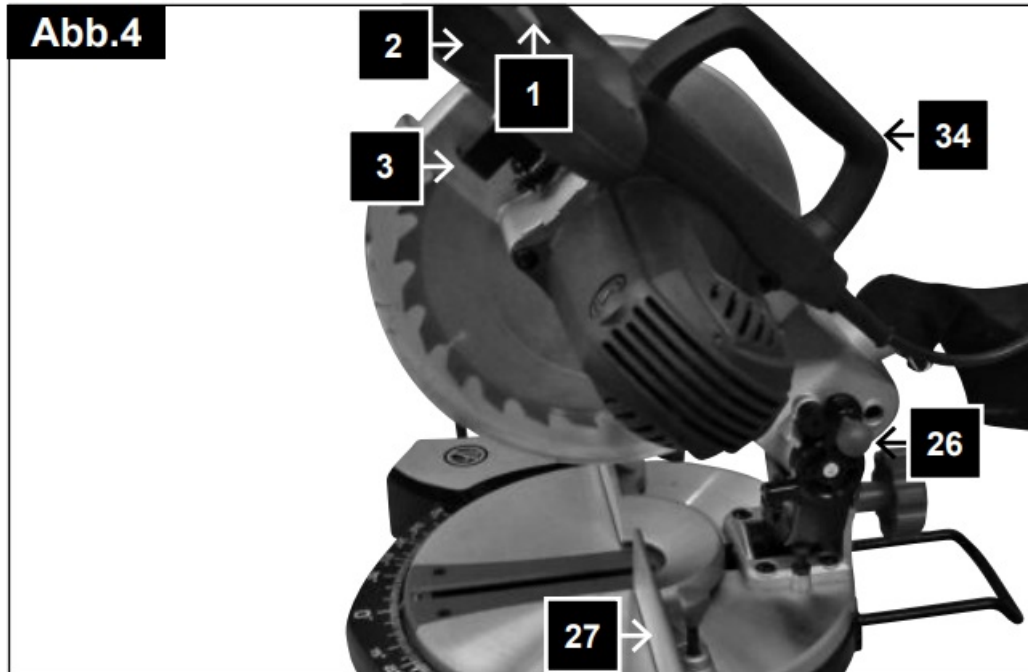
Cross cut 90° and turntable 0° – 45° (Fig. 4, 2, 1.3)

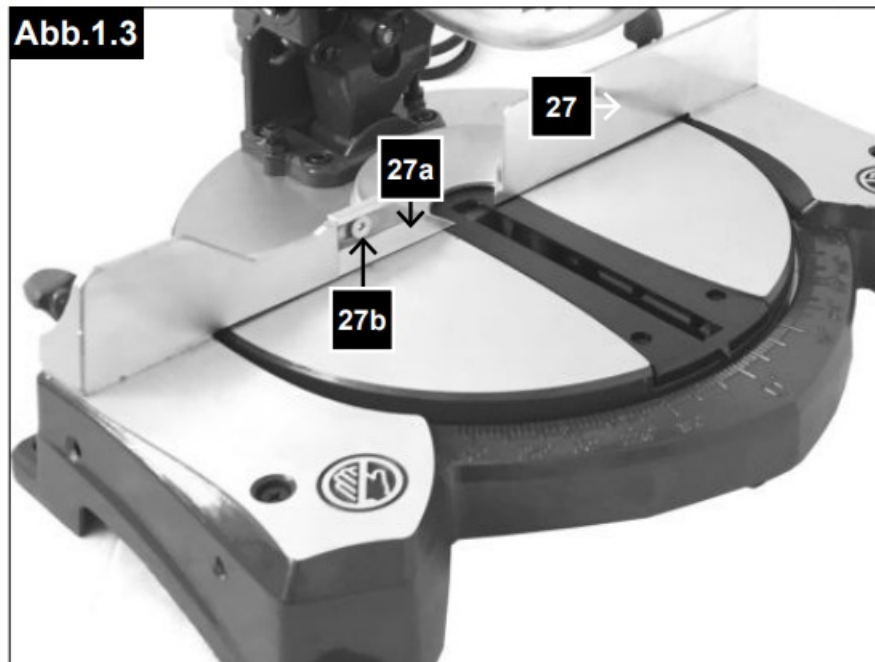
The crosscut saw can be used to make crosscuts of 0°-45° to the left and 0° -45° to the right in relation to the stop rail.

Attention! For bevel cuts (inclined saw head), the moveable stop rail (27a) must be fixed in the inner position.

- Open the set screw (27b) on the moveable stop rail (27a) and push the moveable stop rail (27a) outwards.
- The moveable stop rail (27a) must be locked in a position far enough from the inner position that the distance between the stop rail (27a) and the saw blade (5) is no more than 8 mm.

- Before making the cut, check that no collision could occur between the stop rail (27a) and the saw blade (5).
- Tighten the set screw (27b) again.
- Loosen set screw (21).
- Use the handle (2) to set the turntable (9) to the desired angle. The pointer on the turntable must coincide with the desired angular extent of the scale on the base (7).
- Re-tighten the locking screw (21) to fix the turntable (9).
- Cut as described under section „Cross cut 90° and turntable 0°“.

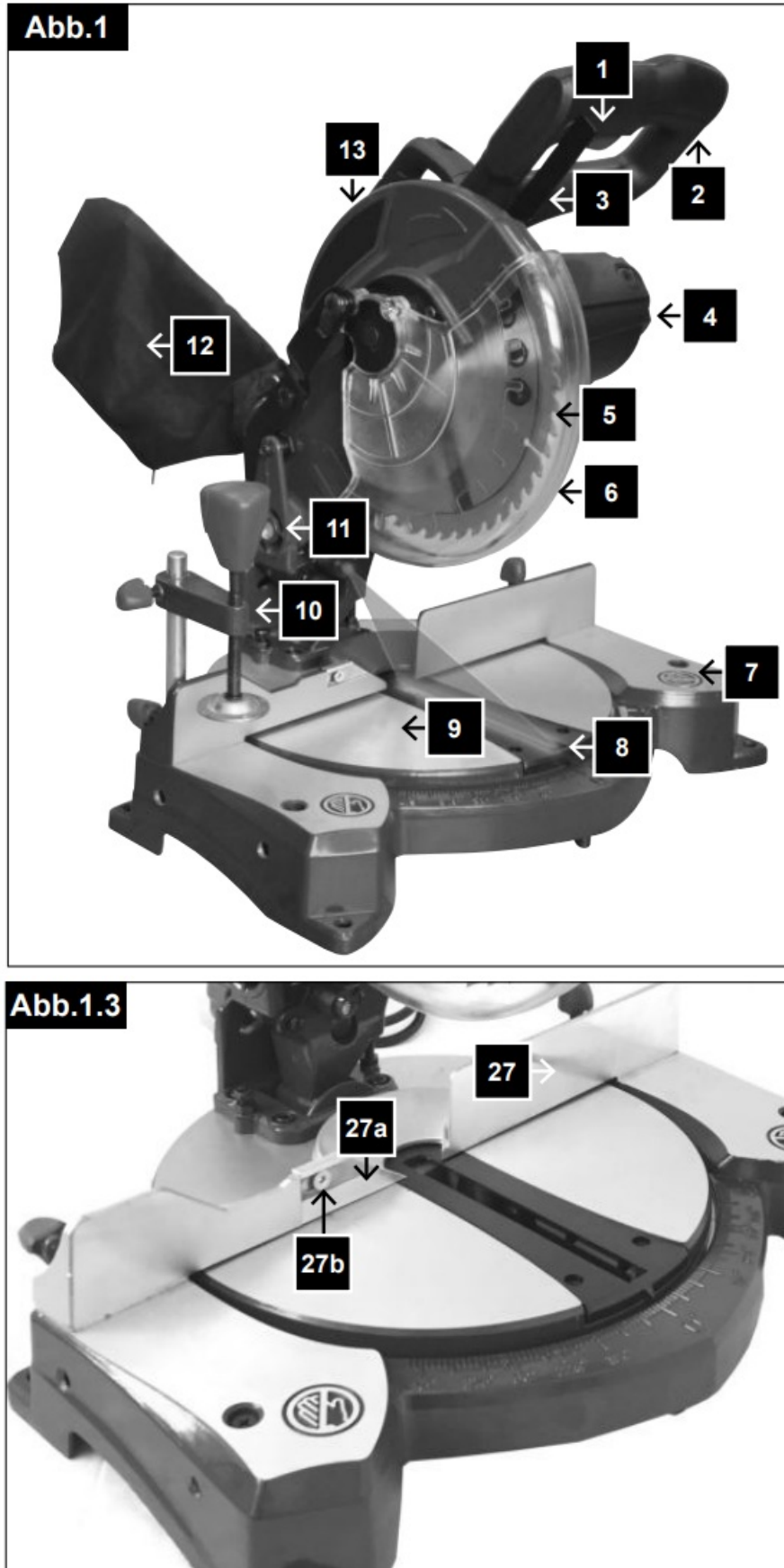




Mitre cut 0°- 45° (Fig. 1, 1.3)

The crosscut saw can be used to make mitre cuts of 0° – 45° in relation to the work face. Important. To make miter cuts (inclined saw head), the adjustable stop rail (27a) must be fixed at the outer position.

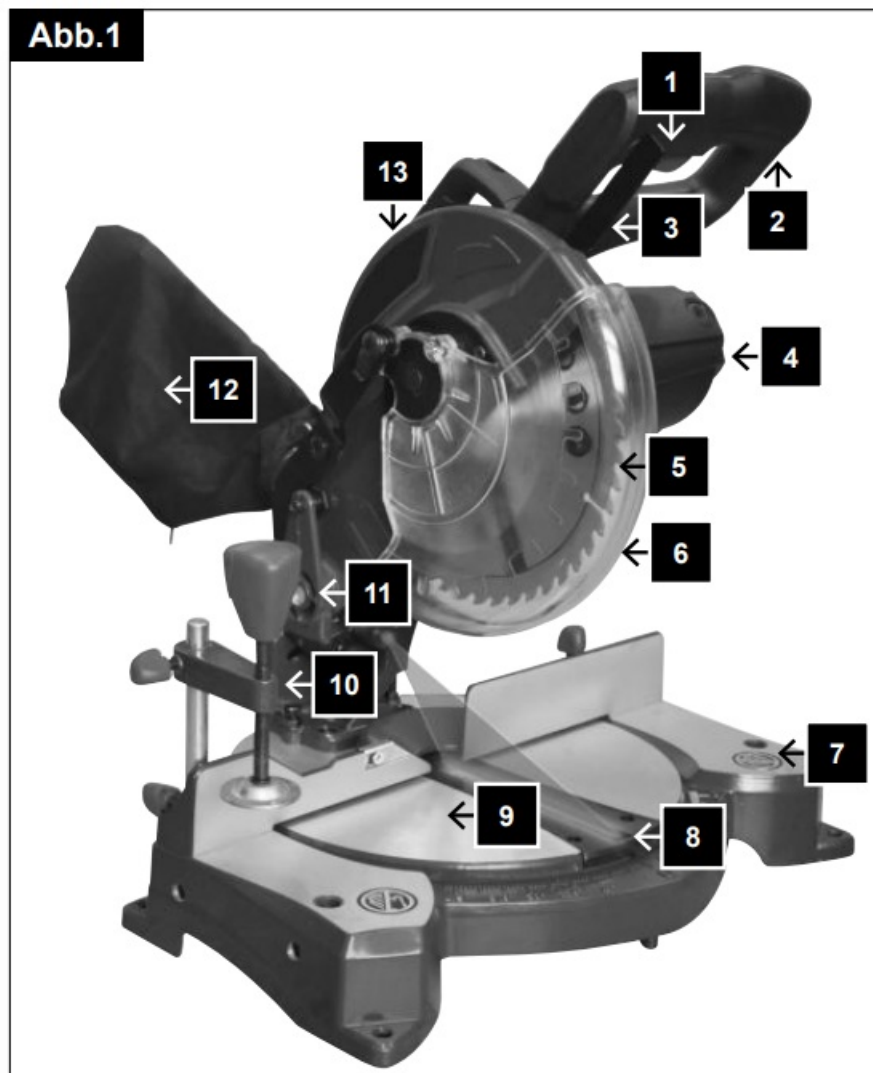
- Open the set screw (27b) for the adjustable stop rail (27a) with an Allen key and push the adjustable stop rail outwards.
- The adjustable stop rail (27a) must be fixed far enough in front of the innermost position that the distance between the stop rail (27a) and the saw blade (5) amounts to a maximum of 8 mm
- Before making a cut, check that the stop rail (27a) and the saw blade (5) cannot collide.
- Secure the locking lever (27b) again.
- Move the machine head to the top position.
- Fix the rotary table (9) in the 0° position.
- Loosen the set screw (23) and use the handle (2) to angle the machine head to the left, until the pointer (25) indicates the desired angle measurement on the scale (24).
- Re-tighten the fixing screw (23).
- Cut as described under section „Cross cut 90° and turntable 0°“.

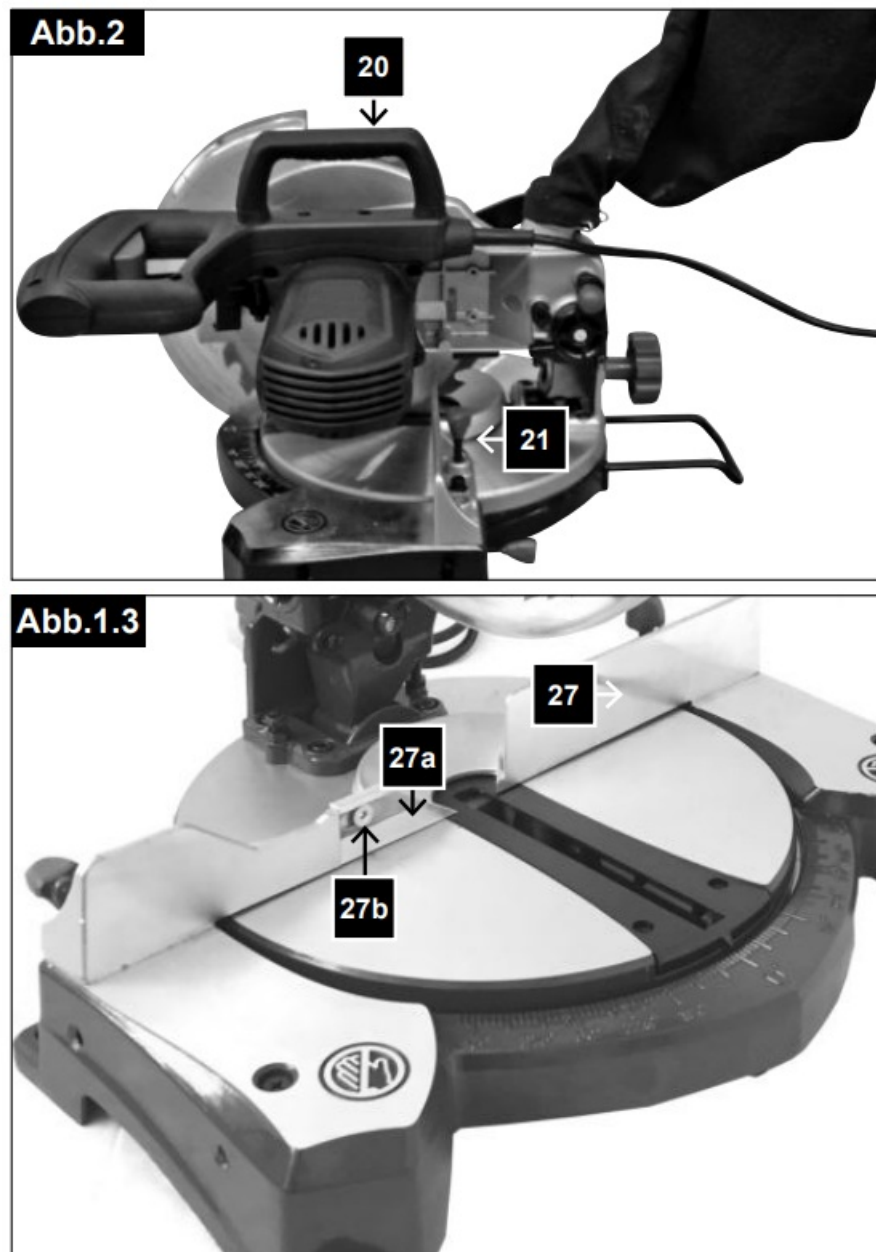


Mitre cut 0°- 45° and turntable 0°- 45° (Fig. 1, 2, 1.3)

The crosscut saw can be used to make mitre cuts to the left of 0°- 45° in relation to the work face and, at the same time, 0° – 45° to the left or 0° – 45° to the right in relation to the stop rail (double mitre cut). Important. To make miter cuts (inclined saw head), the adjustable stop rail (27a) must be fixed at the outer position.

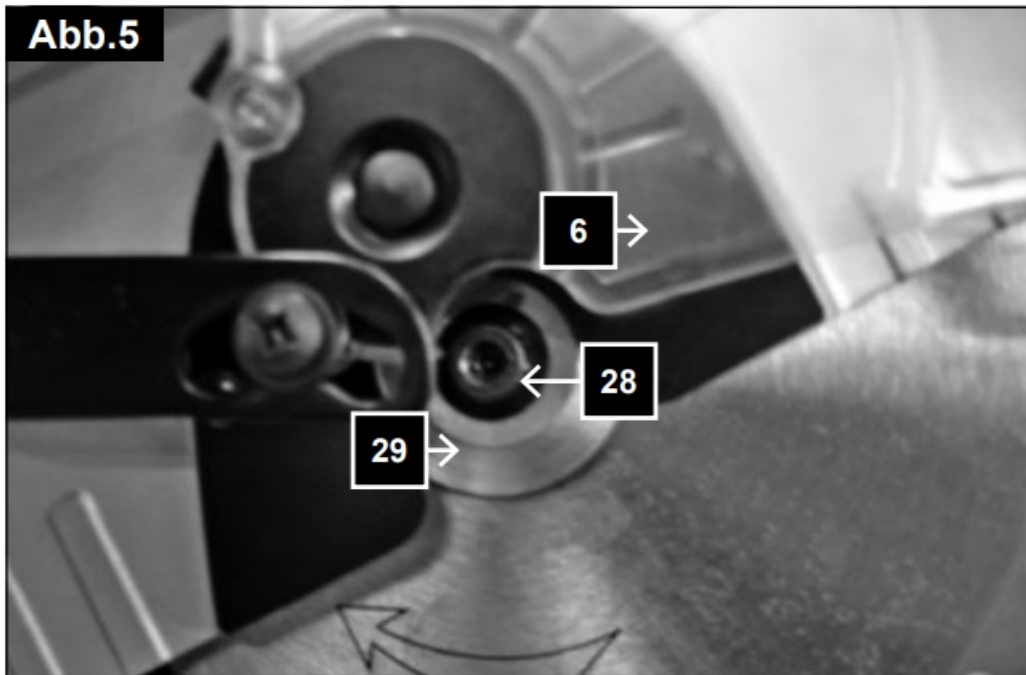
- Open the locking lever (27b) for the adjustable stop rail (27a) and push the adjustable stop (27a) rail outwards.
- The adjustable stop rail (27a) must be fixed far enough in front of the innermost position that the distance between the stop rail (27a) and the saw blade (5) amounts to a maximum of 8 mm.
- Before making a cut, check that the stop rail (27a) and the saw blade (5) cannot collide.
- Secure the locking lever (27b) again.
- Move the machine head to its upper position.
- Release the rotary table (9) by loosening the set screw (21).
- Using the handle (2), set the rotary table (9) to the desired angle (refer also to point “Cross cut 90° and turntable 0° – 45°” in this regard).
- Re-tighten the set screw (21) in order to secure the rotary table.
- Undo the locking screw (23)
- Use the handle (2) to tilt the machine head to the left until it coincides with the required angle value (in this connection see also section “Mitre cut 0° - 45°”).
- Re-tighten the fixing screw (23).
- Cut as described under section “Cross cut 90° and turntable 0°”.





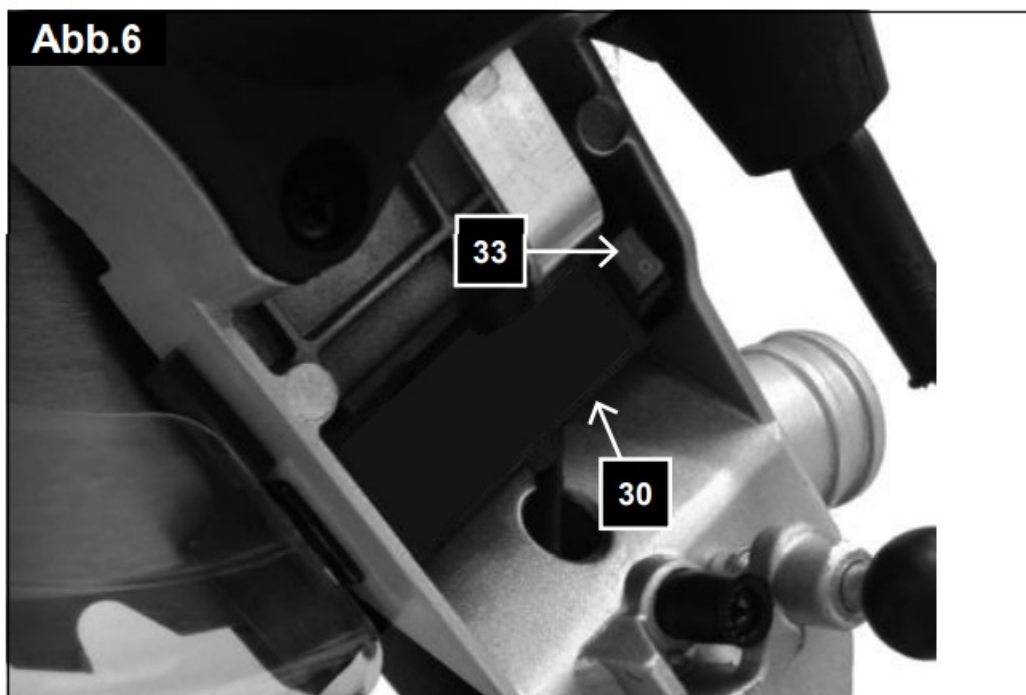
Saw blade replacement (Fig. 5)

- Pull out the mains plug.
- Place the saw unit in „cross-cutting“ position
- Unlock the moving saw blade guard (6) by pressing the lock (3 – Fig. 1); in the process, raise the saw blade guard so that the saw blade is free.
- Actuate the spindle lock (22 – Fig. 3).
- Loosen the saw blade fastening screw (28) – (Attention: left-handed thread).
- Remove the screw (28) and saw blade flange (29).
- Carefully remove the saw blade (risk of injury from the saw blade teeth).
- Place a new saw blade on the inner saw blade flange. In the process, observe the rotational direction of the saw blade.
- Fit the outer saw blade flange and firmly tighten the screw.
- Move the saw blade guard back to the correct position.



Replacing laser batteries (Fig. 6)

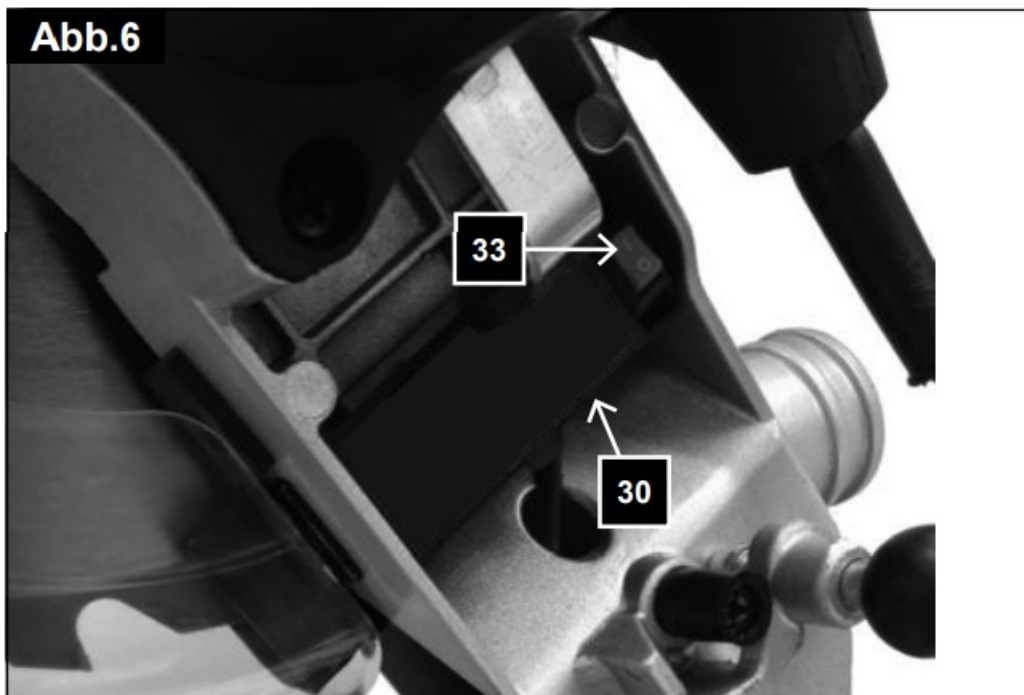
- Remove the laser battery cover (30). Remove the 2 batteries.
- Replace both batteries with the same or an equivalent type. Make sure that they are inserted with the same polarity as the used batteries.
- Close the battery cover.



Switch ON / switch OFF the laser (Fig. 6)

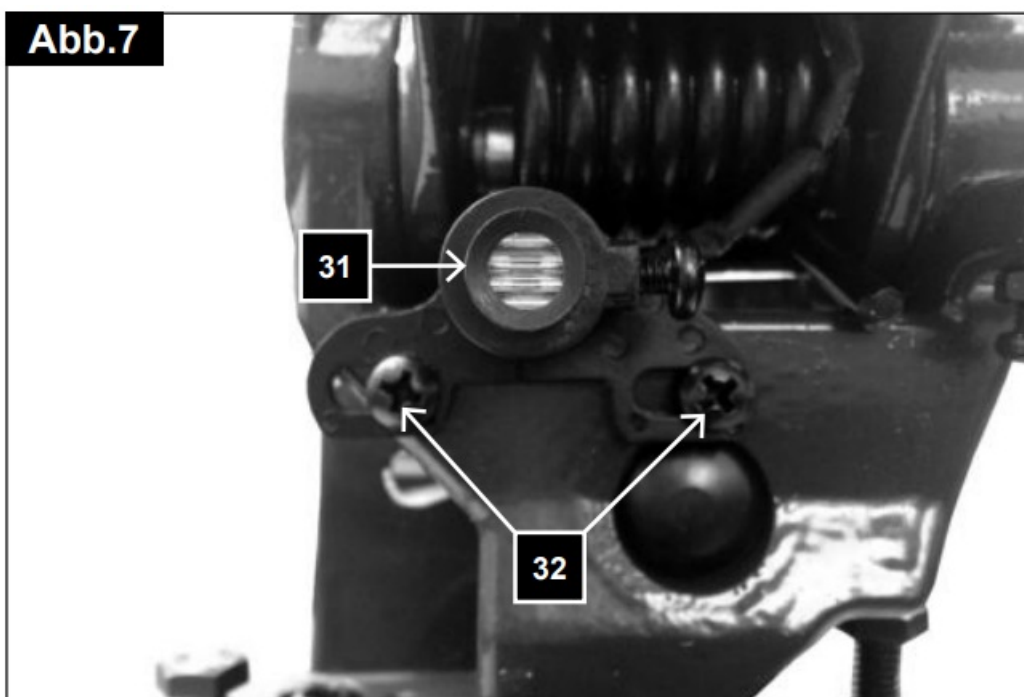
To switch on: Move the ON/OFF (33) switch of the laser (34) to the “1” position. A laser line is projected onto the material you wish to process, providing an exact guide for the cut.

To switch off: Move the ON/OFF switch of the laser to the “0” position.



Adjusting the laser (Fig. 7)

If the laser (31) ceases to indicate the correct cutting line, you can readjust the laser. To do so, open the screws (32) and set the laser by moving sideways to that the laser beam strikes the teeth of the saw blade (5).



Electrical connection

The electrical motor installed is connected and ready for operation. The connection complies with the applicable VDE and DIN provisions. The customer's mains connection as well as the extension cable used must also comply with these regulations.

Important information

In the event of an overloading the motor will switch itself off. After a cool-down period (time varies) the motor can be switched back on again.

Damaged electrical connection cable

The insulation on electrical connection cables is often damaged.

This may have the following causes:

- Passage points, where connection cables are passed through windows or doors.
- Kinks where the connection cable has been improperly fastened or routed.
- Places where the connection cables have been cut due to being driven over.
- Insulation damage due to being ripped out of the wall outlet.
- Cracks due to the insulation ageing.

Such damaged electrical connection cables must not be used and are life-threatening due to the insulation damage.

Check the electrical connection cables for damage regularly. Make sure that the connection cable does not hang on the power network during the inspection. Electrical connection cables must comply with the applicable VDE and DIN provisions. Only use connection cables with the marking „H 07 RN“. The printing of the type designation on the connection cable is mandatory.

AC motor

- The mains voltage must be 230 V~
- Extension cables up to 25 m long must have a cross-section of 1.5 mm²

Connections and repairs of electrical equipment may only be carried out by an electrician. Please provide the following information in the event of any enquiries:

- Type of current for the motor
- Machine data – type plate
- Machine data – type plate

Accessories

SAW DUST EXTRACTION

The mitre saw is equipped with an extraction port to which an extraction system can be connected. Alternatively, a dust bag can also be attached.

The hose of the extraction system is fastened on the extraction port with a clamp. We recommend emptying the bag or container from time to time and cleaning the filter.

The air speed of the suction system must be at least 30 metres per second.



Maintenance

If personnel qualified for unusual maintenance tasks or repairs must be obtained during or after the warranty period, please always contact a service point recommended by us or contact the manufacturer.

- Only perform repair, maintenance and cleaning work as well as the correction of malfunctions with the drive switched off as a basic rule.
- All protective and safety equipment must be reassembled immediately after repair, maintenance is completed.

NORMAL SERVICE TASKS

Normal service tasks can also be performed by untrained personnel and are all described in the preceding sections and in this chapter.

- The mitre saw must not be lubricated, because it always cuts dry surfaces; all moving machine parts are self-lubricating.
- In the event of service work, personal protective equipment must always be worn (protective goggles and gloves).
- Remove saw dust and chips regularly by cleaning the cutting zone and support surfaces.
We recommend using a suction tool or brush.

ATTENTION: Do not use compressed air! Check the saw blade from time to time: If problems arise with the blade, it must be ground by a specialist or replaced, depending on the condition.

DECOMMISSIONING OF THE MACHINE

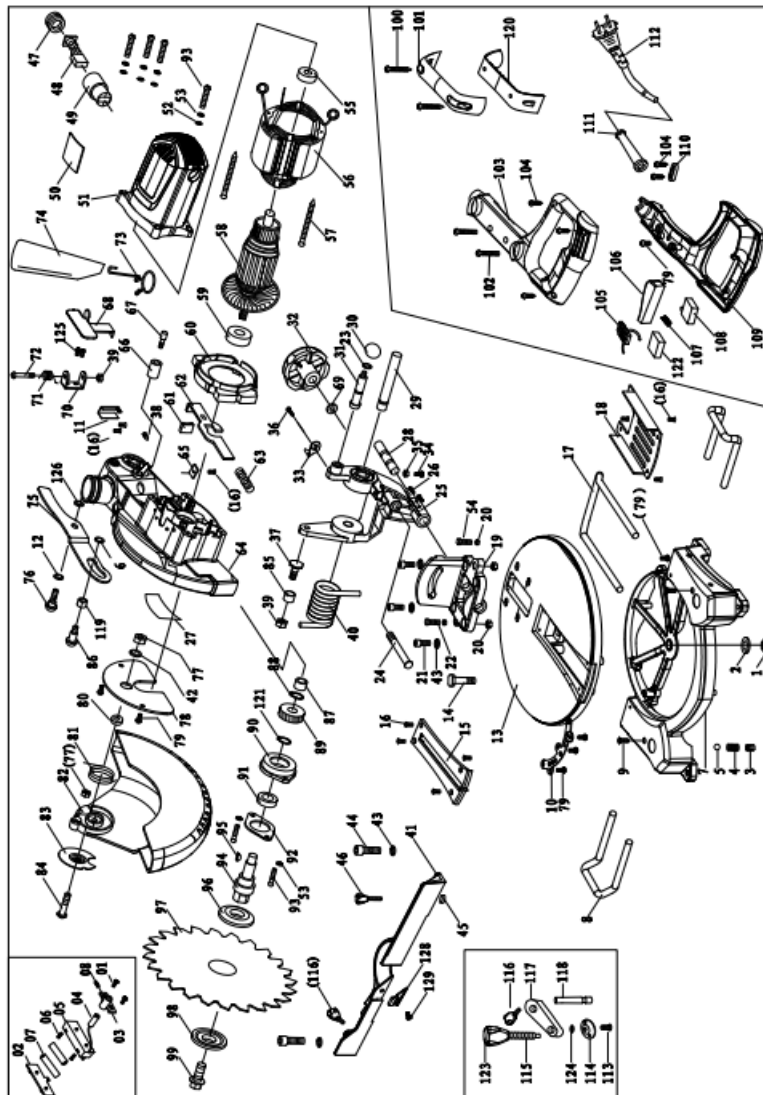
After the machine is decommissioned it can be disposed of with normal industrial waste.

Troubleshooting

Fault	Possible cause	Remedy
Motor does not work	Motor, cable or plug defective, fuses burnt	Arrange for inspection of the machine by a specialist. Never repair the motor yourself. Danger! Check fuses and replace as necessary

The motor starts up slowly and does not reach operating speed.	Voltage too low, coils damaged, capacitor burnt	Contact the utility provider to check the voltage. Arrange for inspection of the motor by a specialist. Arrange for replacement of the capacitor by a specialist
Motor makes excessive noise	Coils damaged, motor defective	Arrange for inspection of the motor by a specialist
The motor does not reach its full power.	Circuits in the network are overloaded (lamps, other motors, etc.)	Do not use any other equipment or motors on the same circuit
Motor overheats easily.	Overloading of the motor, insufficient cooling of the motor	Avoid overloading the motor while cutting, remove dust from the motor in order to ensure optimal cooling of the motor
Reduced cutting power when sawing	Saw blade too small (ground too much)	Readjust end stop of the saw unit
Saw cut is rough or wavy	Saw blade dull, tooth shape not appropriate for the material thickness	Resharpen saw blade and/or use suitable saw blade
Workpiece pulls away and/or splinters	Excessive cutting pressure and/or saw blade not suitable for use	Insert suitable saw blade

Spare parts drawing



Declaration of conformity

hereby declares the following conformity under the EU Directive and standards for the following article

Mitre saw – HM80L

2014/29/EU
 2014/35/EU
 2006/28/EC
 2005/32/EC
 X 2014/30/EU
 2004/22/EC
 1999/5/EC
 2014/68/EU
 90/396/EC
 X 2011/65/EU

89/686/EC_96/58/EC
 X 2006/42/EC

Annex IV

Notified Body:

Notified Body No.:

Reg. No.:

2000/14/EC_2005/88/EC

Annex V

Annex VI

Noise: measured LWA = xx dB(A); guaranteed LWA = xx dB(A)

Notified Body:

Notified Body No.:

2004/26/EC

Emission. No:

**Standard references: EN 61029-1; EN 61029-2-9; EN 55014-1; EN 55014-2;
EN 61000-3-2; EN 61000-3-3; EN 60825-1**

Ichenhausen, den 20.09.2016


Unterschrift / Markus Bindhammer / Technical Director

First CE: 2015

Art.-No. 3901105915 / 3901105941 / 3901105942

Subject to change without notice

Documents registrar: Andreas Pecher

Günzburger Str. 69, D-89335 Ichenhausen

Warranty

Apparent defects must be notified within 8 days from the receipt of the goods. Otherwise, the buyer's rights of claim due to such defects are invalidated. We guarantee for our machines in case of proper treatment for the time of the statutory warranty period from delivery in such a way that we replace any machine part free of charge which provably becomes unusable due to faulty material or defects of fabrication within such period of time. With respect to parts not manufactured by us we only warrant insofar as we are entitled to warranty claims against the upstream suppliers. The costs for the installation of the new parts shall be borne by the buyer. The cancellation of sale or the reduction of purchase price as well as any other claims for damages shall be excluded.

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+(49)-08223-4002-58



Documents / Resources



[scheppach HM80L Undercut Mitre Saw](#) [pdf] Instruction Manual
5906113901, 3901105941, 3901105942, 5906113850, HM80L Undercut Mitre Saw, HM80L, Undercut Mitre Saw, Mitre Saw, Saw

References

- [scheppach | scheppach](#)