Bäumr-AG

Compound Mitre Saw – CMS-305

User Manual

[Revision 1.0 February 2019]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

E&OE

Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:

You WILL be KILLED or SERIOUSLY INJURED if you do not follow instructions.

You CAN be KILLED or SERIOUSLY INJURED if you do not follow instructions.

You CAN be INJURED if you do not follow instructions or equipment damage may occur.

It is vital that you read and understand this user manual before using the product, including safety warnings, and any assembly and operating instructions. Keep the manual for future reference.

Safety precautions and recommendations detailed here must be fully understood and followed to reduce the risk of injury, fire, explosion, electrical hazard, and/or property damage.

Safety information presented here is generic in nature – some advice may not be applicable to every product. The term "equipment" refers to the product, be it electrical mains powered, battery powered or combustion engine powered.

- **Before Use** - If you are not familiar with the safe operation/handling of the equipment or are in any way unsure of any aspect of suitability or correct use for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.
- Do NOT operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. The equipment may create sparks or heat that may ignite flammable substances.
- Keep clear of moving parts.
- Equipment may be a potential source of electric shock or injury if misused.
- Do NOT operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.
- Do NOT allow others to use the equipment unless they have read this manual and are adequately trained.
- Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.

General Work Area Safety

- Work areas should be clean and well it.
- Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area.
- If devices are provided for connecting dust extraction / collection facilities, ensure these are connected and used properly. Dust collection can reduce dust-related hazards.

General Personal Safety

- Wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from eye and ear injury, poisoning, burns, cutting and crush injuries. Protective equipment such as safety goggles, respirators, non-slip safety footwear, hard hat, hearing protection etc should be used for appropriate equipment / conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.
- Stay alert and use common sense when operating the equipment. Do not over-reach. Always maintain secure footing and balance.
- Do not use the equipment if tired or under the influence of drugs, alcohol or medication.
- This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities.

General Fuel Safety

- Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources.
- Do not spill fuel. If you spill fuel, wipe it off the equipment immediately – if fuel gets on your clothing, change clothing.
- Do NOT smoke near fuel or when refuelling.
- Always shut off the engine before refuelling.
- Do NOT refuel a hot engine.
- Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly.
- Always refuel in well ventilated areas.
- Always check for fuel leakage. If fuel leakage is found, do not start or run the engine until all leaks are fixed.

General Carbon-Monoxide Safety

- Using a combustion engine indoors **CAN KILL IN MINUTES**. Engine exhaust contains carbon-monoxide – a poison you cannot smell or see.
- Use combustion engines OUTSIDE only, and far away from windows, doors and vents.

General Equipment Use and Care

- The equipment is designed for domestic use only.
- Handle the equipment safely and carefully.
- Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorised service centre or technician before use.
- Prevent unintentional starting of the equipment - ensure equipment and power switches are in the OFF position before connecting or moving equipment. Do not carry equipment with hands or fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.
- Do not force the equipment. Use the correct equipment for your application. Equipment will perform better and be safer when used within its design and usage parameters.
- Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.
- Always keep equipment components (engines, hoses, handles, controls, frames, housings, guards etc) and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment clean and, where applicable, properly lubricated.
- Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place or store the equipment near flammable materials, combustible gases or liquids etc.
- The equipment is not weather-proof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or humid.
- Do not clean equipment with solvents, flammable liquids or harsh abrasives.
- For specific equipment safety use and care, see Equipment Safety.

General Electrical Safety

- Inspect electrical equipment, extension cords, power bars, and electrical fittings for damage or wear before each use. Repair or replace damaged equipment immediately.
- Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting or disconnecting equipment.
- When wiring electrically powered equipment, follow all electrical and safety codes.
- Wherever possible, use a residual current device (RCD).
- High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.

General Electrical Safety

- Electrically grounded equipment must have an approved cord and plug and be connected to a grounded electrical outlet.
- Do NOT bypass the ON/OFF switch and operate equipment by connecting and disconnecting the electrical cord.
- Do NOT use equipment that has exposed wiring, damaged switches, covers or guards.
- Do NOT use electrical equipment in wet conditions or in damp locations.
- Do NOT use electrical cords to lift, move or carry equipment.
- Do NOT coil or knot electrical cords, and ensure electrical cords are not trip hazards.

General Service Information

- The equipment must be serviced or repaired at authorised service centres by qualified personnel only.
- Replacement parts must be original equipment manufacturer (OEM) to ensure equipment safety is maintained.
- Do NOT attempt any maintenance or repair work not described in this manual.
- After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before adjusting, changing accessories or performing repair or maintenance.
- Do NOT adjust while the equipment is running.
- Perform service-related activities in suitable conditions, such as a workshop.
- Replace worn, damaged or missing warning/safety labels immediately.

Intended Use

The crosscut, drag and mitre saw are designed to crosscut wood and plastic respective of the machine's size. The saw is not designed for cutting firewood.

Warning! Do not use the saw to cut materials other than those specified described in manual.

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

The equipment is to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user / operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

The equipment is to be operated only with suitable saw blades. It is prohibited to use any type of cutting-off wheel.

To use the equipment properly you must also observe the safety information, the assembly instructions and the operating instructions to be found in this manual.

All persons who use and service the equipment have to be acquainted with this manual and must be informed about the equipment's potential hazards. It is also imperative to observe the accident prevention regulations in force in your area. The same applies for the general rules of health and safety at work.

The manufacturer will not be liable for any changes made to the equipment nor for any damage resulting from such changes. Even when the equipment is used as prescribed it is still impossible to eliminate certain residual risk factors. The following hazards may arise in connection with the machine's construction and design:

- Contact with the saw blade in the uncovered saw zone.
- Reaching into the running saw blade (cut injuries).
- Kick-back of workpieces and parts of workpieces.
- Saw blade fracturing.
- Catapulting of faulty carbide tips from the saw blade.
- Damage to hearing if ear-muffs are not used as necessary.
- Harmful emissions of wood dust when used in closed rooms.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the equipment is used in commercial, trade or industrial businesses or for equivalent purposes.

General Safety Information for Power Tools

WARNING! Read all safety warnings, instructions, illustrations and technical data provided with this power tool. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" used in the safety instructions refers to mains powered power tools (with power cord) and cordless power tools (without power cord).

Workplace Safety

- **Keep your workplace clean and well illuminated.** Disorderliness and poorly illuminated workplaces may lead to accidents.
- **Do not operate the power tool in explosive atmospheres with inflammable liquids, gases or dust.** Power tools generate sparks which may ignite dust or vapours.
- **Keep children and other persons away from the power tool during operation.** You may lose control of the tool if you are distracted.

Electric Safety

- **The plug of the power tool must fit into the socket. Do not modify the plug in any way.** Do not use adapter plugs together with grounded power tools. Unmodified plugs and matching sockets reduce the risk of electric shock.
- **Avoid body contact with grounded surfaces such as pipes, radiators, ovens and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Keep power tools away from rain or humidity.** Water permeation into the power tool will increase the risk of electric shock.
- **Use the cable solely for its intended purpose.** Do not use the cable to carry or hang up the power tool or to pull out the plug from the socket. Keep the cable away from heat, oil, sharp edges or moving machine parts. Damaged or twisted cables increase the risk of electric shock.
- **When working outdoors with power tools, only use extension cords which are suited for outdoor areas.** Using extension cords suited for outdoor applications reduces the risk of electric shock.
- **If the operation of power tools in a humid environment cannot be avoided, you must use a residual current circuit breaker.** The use of a residual current circuit breaker will reduce the risk of electric shock.

Personal Safety

- **Pay attention to what you are doing and use power tools sensibly.** Do not use power tools when you are tired or under the influence of drugs, alcohol or medication. A single moment of inattention while using power tools may cause severe injury.
- **Wear personal protective equipment and safety goggles.** Wearing personal protective equipment such as a dust mask, non-skid safety boots, a protective helmet or hearing protection according to the type and application of the power tool reduces the risk of injury.
- **Avoid starting the power tool unintentionally.** Make sure that the power tool is switched off before you connect it to the mains and/or insert a battery, pick it up or carry it. If you have your finger on the switch when you carry the power tool, or if the machine is switched on when you connect it to the mains, this may result in accidents.
- **Remove adjustment tools or wrenches before switching on the power tool.** Tools or wrenches in rotating machine parts may cause injury.
- **Avoid abnormal body positions.** Stand securely and keep your balance at all times. By doing so, you can control the power tool more easily in unexpected situations.
- **Wear suitable clothing.** Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothing, jewellery or long hair may be trapped in moving parts.
- **If dust extraction tools or collection bins can optionally be attached, you must make sure that they are connected and correctly used.** Using dust extraction tools may reduce risks caused by dust.
- **Do not let familiarity gained from frequent use of the tool allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Use and Treatment of the Power Tool

- **Do not overload the tool.** Use the appropriate power tool for your type of work. With appropriate power tools, you can work better and more safely within the given power range.
- **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** This preventive safety measure reduces the risk of starting the power tool accidentally.
- **Store idle power tools out of the reach of children.** Do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- **Carefully maintain power tools and accessories.** Check moving parts for proper function and smooth running and check whether there are parts which are broken or damaged to the extent that the functionality of the power tool is impaired. Have damaged parts repaired before using the power tool. Many accidents are caused by poorly-maintained power tools.
- **Keep cutting tools sharp and clean. Carefully maintained cutting tools with sharp edges are less likely to jam and can be guided more easily.**
- **Use power tools, accessory parts, insertion tools, etc. in compliance with these instructions.** Consider the working conditions and the activity which is to be carried out. Using power tools for applications other than those intended may cause dangerous Situations.
- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the power tool in unexpected situations.

Service

Have your power tool repaired by qualified specialists only, and always use original spare parts for repair. This is to maintain the safety of the power tool.

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 Mitre Saws

- **Mitre saws are intended to cut wood or wood like products, they cannot be used with abrasive cut-off wheels for cutting ferrous material such as bars, rods, studs, etc.** Abrasive dust causes moving parts such as the lower guard to jam. Sparks from abrasive cutting will burn the lower guard, the kerf insert and other plastic parts.
- **Use clamps to support the workpiece whenever possible. If supporting the workpiece by hand, you must always keep your hand at least 100 mm from either side of the saw blade. Do not use this saw to cut pieces that are too small to be securely clamped or held by hand.** If your hand is placed too close to the saw blade, there is an increased risk of injury from blade contact.
- **The workpiece must be stationary and clamped or held against both the fence and the table. Do not feed the workpiece into the blade or cut "freehand" in any way.** Unrestrained or moving workpieces could be thrown at high speeds, causing injury.

- **Push the saw through the workpiece. Do not pull the saw through the workpiece. To make a cut, raise the saw head and pull it out over the workpiece without cutting, start the motor, press the saw head down and push the saw through the workpiece.** Cutting on the pull stroke is likely to cause the saw blade to climb on top of the workpiece and violently throw the blade assembly towards the operator.
- **Never cross your hand over the intended line of cutting either in front or behind the saw blade.** Supporting the workpiece "cross handed" i.e. holding the workpiece to the right of the saw blade with your left hand or vice versa is very dangerous.
- **Do not reach behind the fence with either hand closer than 100 mm from either side of the saw blade, to remove wood scraps, or for any other reason while the blade is spinning.** The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.
- **Inspect your workpiece before cutting. If the workpiece is bowed or warped, clamp it with the outside bowed face toward the fence. Always make certain that there is no gap between the workpiece, fence and table along the line of the cut.** Bent or warped workpieces can twist or shift and may cause binding on the spinning saw blade while cutting. There should be no nails or foreign objects in the workpiece.
- **Do not use the saw until the table is clear of all tools, wood scraps, etc., except for the workpiece.** Small debris or loose pieces of wood or other objects that contact the revolving blade can be thrown with high speed.
- **Cut only one workpiece at a time.** Stacked multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.
- **Ensure the mitre saw is mounted or placed on a level, firm work surface before use.** A level and firm work surface reduces the risk of the mitre saw becoming unstable.
- **Plan your work. Every time you change the bevel or mitre angle setting, make sure the adjustable fence is set correctly to support the workpiece and will not interfere with the blade or the guarding system.** Without turning the tool "ON" and with no workpiece on the table, move the saw blade through a complete simulated cut to assure there will be no interference or danger of cutting the fence.
- **Provide adequate support such as table extensions, saw horses, etc. for a workpiece that is wider or longer than the table top.** Workpieces longer or wider than the mitre saw table can tip if not securely supported. If the cut-off piece or workpiece tips, it can lift the lower guard or be thrown by the spinning blade.
- **Do not use another person as a substitute for a table extension or as additional support.** Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.
- **The cut-off piece must not be jammed or pressed by any means against the spinning saw blade.** If confined, i.e. using length stops, the cut-off piece could get wedged against the blade and thrown violently.
- **Always use a clamp or a fixture designed to properly support round material such as rods or tubing.** Rods tend to roll while being cut, causing the blade to "bite" and pull the work with your hand into the blade.
- **Let the blade reach full speed before contacting the workpiece.** This will reduce the risk of the workpiece being thrown.
- **If the workpiece or blade becomes jammed, turn the mitre saw off. Wait for all moving parts to stop and disconnect the plug from the power source and/or remove the battery pack. Then work to free the jammed material.** Continued sawing with a jammed workpiece could cause loss of control or damage to the mitre saw.
- **After finishing the cut, release the switch, hold the saw head down and wait for the blade to stop before removing the cut-off piece.** Reaching with your hand near the coasting blade is dangerous.
- **Hold the handle firmly when making an incomplete cut or when releasing the switch before the saw head is completely in the down position.** The braking action of the saw may cause the saw head to be suddenly pulled downward, causing a risk of injury.

Safety Instructions for The Handling of Saw Blades

- Do not use damaged or deformed saw blades.
- Do not use any insertion tools with cracks. Sort out cracked insertion tools. Repairs are not permitted.
- Do not use saw blades made of high-speed steel.
- Check the condition of the saw blades before using the crosscut, drag and mitre saw.
- Make sure that a suitable saw blade for the material to be cut is selected.
- Only use saw blades recommended by the manufacturer. Saw blades designed to cut wood and similar materials must comply with EN 847-1.
- Do not use saw blades made of high-speed alloy steel (HSS steel).
- Only use saw blades for which the maximum permissible speed is not lower than the maximum spindle speed of the crosscut, drag and mitre saw, and which are suitable for the material to be cut.
- Observe the saw blade direction of rotation.
- Only insertion the saw blade if you have mastered their use.
- Observe the maximum speed. The maximum speed specified on the insertion tool may not be exceeded. If specified, observe the speed range.
- Clean grease, oil and water off of the clamping surfaces.
- Do not use any loose reducing rings or bushes for the reducing of holes on saw blades.
- 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.
- Make sure that fixed reducer rings are parallel to each other.
- 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.
- Prior to the use of insertion tools, make sure that all protective devices are properly fastened.
- Prior to use, make sure that the insertion tool meets the technical requirements of this electric tool and is properly fastened.
- Only use the supplied saw blade for cutting wood, never for the processing of metals.
- Only use saw blade diameters in accordance with the markings on the saw.
- Use additional workpiece supports, if required for workpiece stability.
- Workpiece support extensions must always be secured and used during work.

- Replace table inserts when worn!
- Avoid overheating of the saw teeth.
- When sawing plastic, avoid melting of the plastic. Use the appropriate saw blades for this purpose. Replace damaged or worn saw blades immediately. When the saw blade overheats, stop the machine. Allow the saw blade to cool down before using the machine again.

Protect yourself and your 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 you do not use the device for a long 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.

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 machine 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.
- **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.**

Wear Hearing Protection

- The effects of noise can cause a loss of hearing.
- The above-mentioned noise emission values were measured in accordance with a standardised test procedure and can be used to compare one power tool with another.
- The above-mentioned noise emission values can also be used for the preliminary assessment of exposure.

WARNING:

- The noise emissions during the actual use of the power tool may differ from the above-mentioned values depending on the power tool being used, in particular on the type of workpiece being processed.
- Try to keep emissions as low as possible, for example by limiting your working time. In this regard, all the operational cycle phases must be taken into consideration (such as the times when the tool is switched off or running idle).

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.

- The product meets the requirements of EN 61000-3-11 and is subject to special connection conditions. This means that use of the product at any freely selectable connection point is not allowed.
- Given unfavourable conditions in the power supply the product can cause the voltage to fluctuate temporarily.

The product is intended solely for use at connection points that:

- Do not exceed a maximum permitted supply impedance “Z” (Zmax = 0.382 Ω), or
- Have a continuous current-carrying capacity of the mains of at least 100 A per phase.
- As the user, you are required to ensure, in consultation with your electric power company if necessary, that the connection point at which you wish to operate the product meets one of the two requirements, a) or b), named above.

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 “H05VV-F.”

The printing of the type designation on the connection cable is mandatory.

AC motor:

The mains voltage must be 220 - 240 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

Safety Symbols

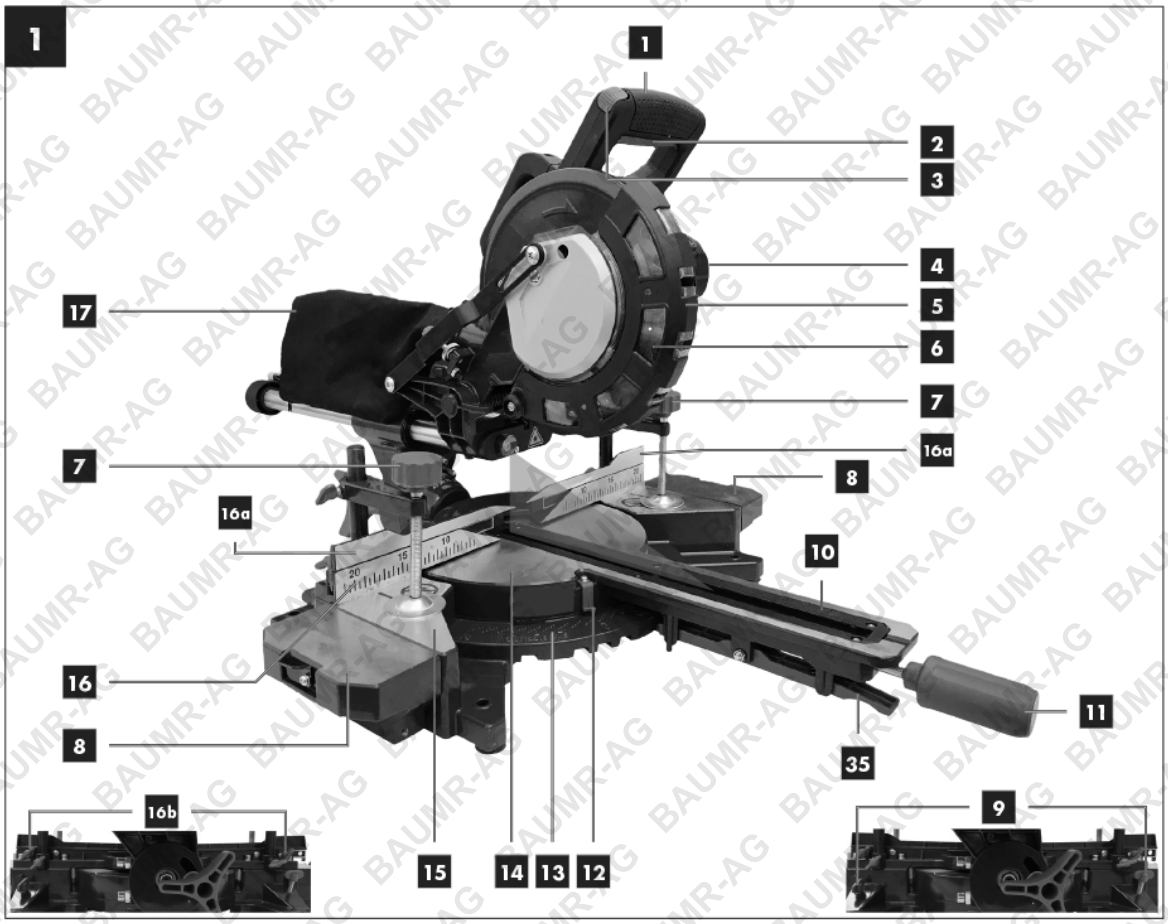
The product may have safety warning labels attached to it, explained below. Understand the symbols on your product and their meanings. If any stickers become unreadable, unattached etc., replace them.

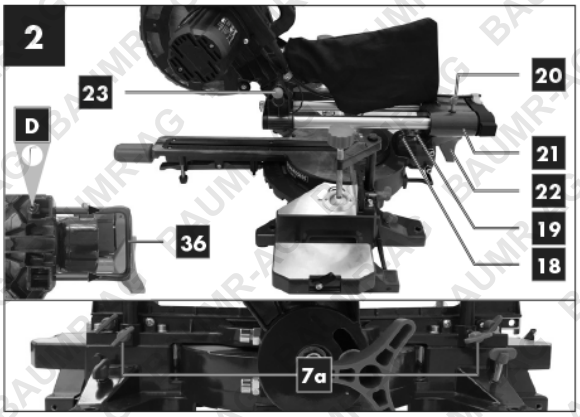
 **Flammable Material Hazard** Flammable liquids, gases or substances etc may present. Avoid ignition sources and open flames. Danger of fire.	 **Read User Manual** Read and fully understand product safety warnings, operation, procedures etc before using the product.	 **Use Hand Protection** Wear appropriate hand protection and take due care as the product or use of the product may present hand hazards.	 **Carbon-Monoxide Hazard** Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.
 **Electrocution / Electrical Shock Hazard** High voltage or high current electricity may be present or required by the product. Take due care when handling electrical products, cables, plugs and leads. Electrical shock can be fatal.	 **Toxic Fumes / Dust Hazard** Using the product or by-products from use may produce fumes, smoke or particles that could be harmful if inhaled. Wear appropriate breathing protection and have adequate ventilation.	 **Explosive Material Hazard** Combustible liquids, gases or substances etc may be present. Avoid ignition sources and open flames. Danger of explosion.	 **Cutting / Amputation Hazard** The product may have blades, edges or mechanical devices that can cause severe cut injury to fingers, limbs etc. Take due care when handling and using the product.
 **Crush Hazard** The product may have blades, edges or mechanical devices that can cause severe crush injury to fingers, limbs etc. Take due care when handling and using the product.	 **Single Operator Only** The product must be operated by a single person only. More than one person operating the product may introduce additional hazards.	 **Use Face Protection** Wear appropriate full-face protection and take due care as the product or use of the product may present face and eye hazards.	 **Use Foot Protection** Wear appropriate foot protection and take due care as the product or use of the product may present foot hazards.
 **Use Eye / Ear / Head Protection** Wear appropriate eye and / or ear and / or head protection and take due care as the product or use of the product may present eye, hearing and head hazards.	 **Running Hazard** Do not run on or near the product as doing so may present a fall hazard.	 **Diving Hazard** Do not dive into the product as doing so may present a neck / head injury hazard.	 **Adult Supervision Required** Always supervise children and other users of a product to prevent drowning or injury.
 **Skin Penetration / Puncture Hazard** The product may produce pressure, emit liquids or objects that can cause severe injury to fingers, limbs, blood etc. Take due care when handling and using the product.	 **Hot Surface Hazard** Be aware that the product may produce high temperatures and hot surfaces that can cause burn injuries.	 **Flying Debris Hazard** Be aware that the product or use of the product may present hazards produced by flying debris. Wear appropriate clothing and protective devices.	 **Moving Parts Hazard** Be aware that the product contains or uses mechanical devices that move or rotate. Always wait for moving parts to stop fully before handling the product, adjusting, maintenance etc.

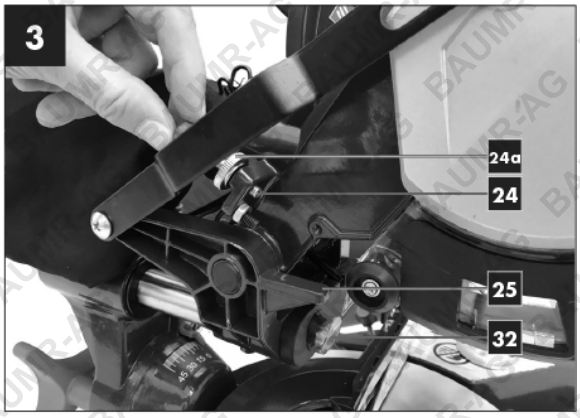
 **Carbon-Monoxide Hazard** Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.	 **Pull Hazard** Be aware that the product contains or uses mechanical devices that can pull in objects and can cause severe injury to fingers, limbs etc. Take due care when handling and using the product.	 **Slope / Fall Injury Hazard** Be aware that using the product on sloping surfaces or in slippery conditions may present additional dangers from falls and contact with blades, moving parts, hot surfaces etc.	 **"Slam Dunk" Warning** Do NOT attempt "slam dunk" manoeuvres as this may result in severe injury due to falling, product breakage or collapse etc.
 **Electrocution / Electrical Shock Hazard - Outdoor** High voltage or high current electricity may be present or required by the product. Do NOT use in rain, damp or wet conditions. Electrical shock can be fatal.	 **Electrocution / Electrical Shock Hazard - Disconnect** High voltage or high current electricity may be present or required by the product. Always disconnect the product from the electrical supply before handling the product, adjusting, maintenance etc.	 **Power Line Electrocution Hazard** High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.	 **"Kick-Back" Hazard** High level of "kick-back" hazard that can cause the machine to suddenly rotate towards operator. Kick-back injury can be fatal.
 **Winch Operator Position Hazard** Do NOT stand between winch and load. Do NOT use winch to move people.	 **Winch Lift Hazard** Do NOT LIFT load vertically. Use machine to PULL only.	 **Cable Hazard** Ensure that load bearing cable is not kinked or knotted.	 **Winch Cable Hazard** Ensure that there is a minimum number of cable coils on winching mechanism.
 **Winch Hook Hazard** Carry hook to load – do NOT throw or run.	 **Flash / Blinding Hazard** Wear appropriate eye protection for welding. Direct exposure to weld arcs may cause permanent eye injury.	 **Laser Hazard** Laser may be in use – do NOT look directly at laser or allow others to.	

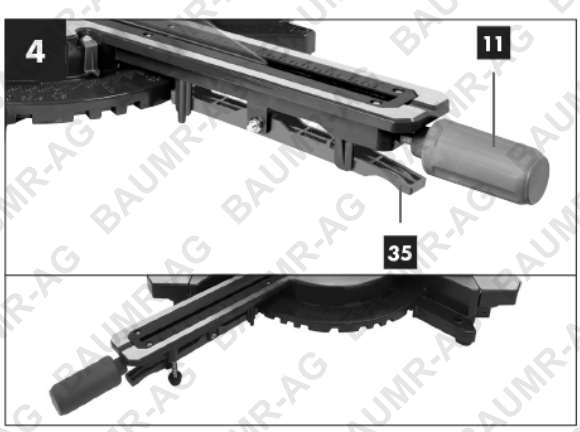
Table of Contents

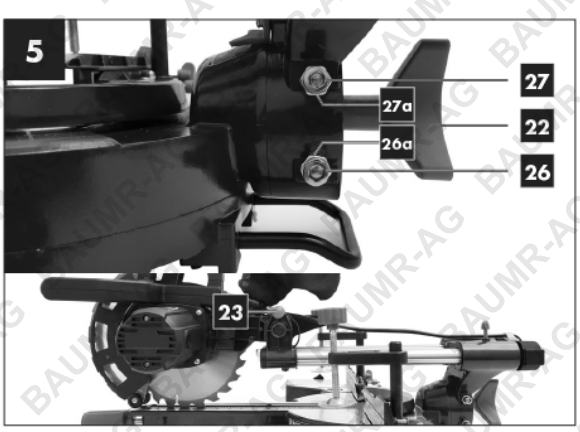
Table of Figures

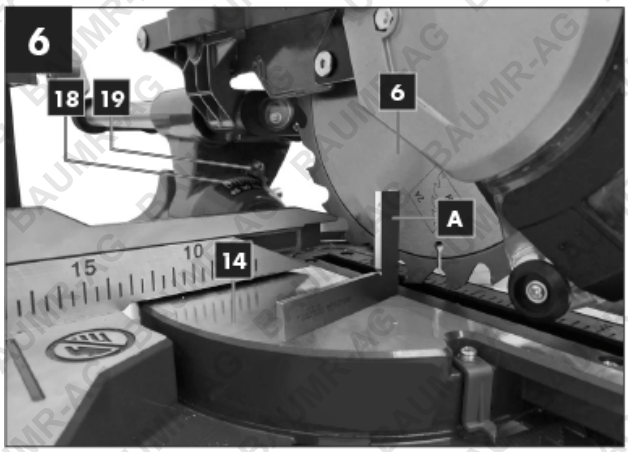


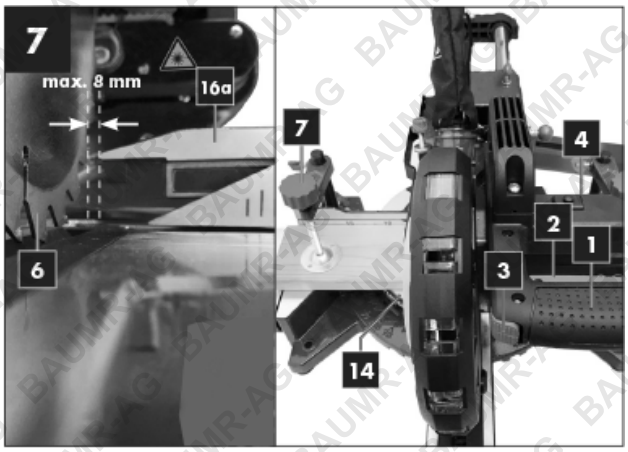


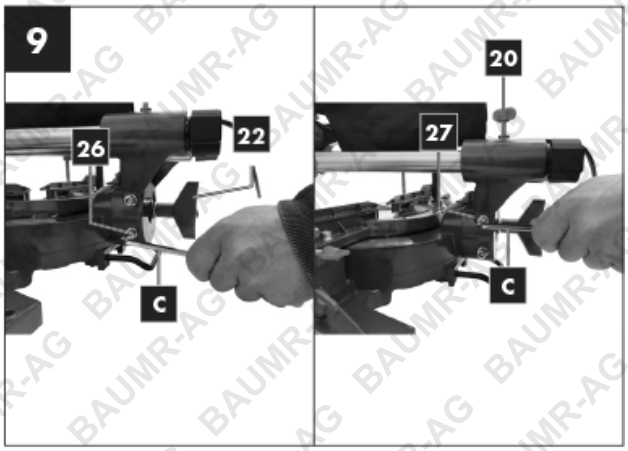


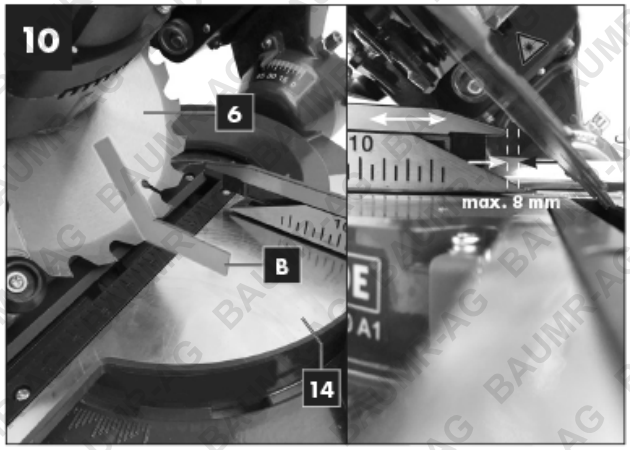


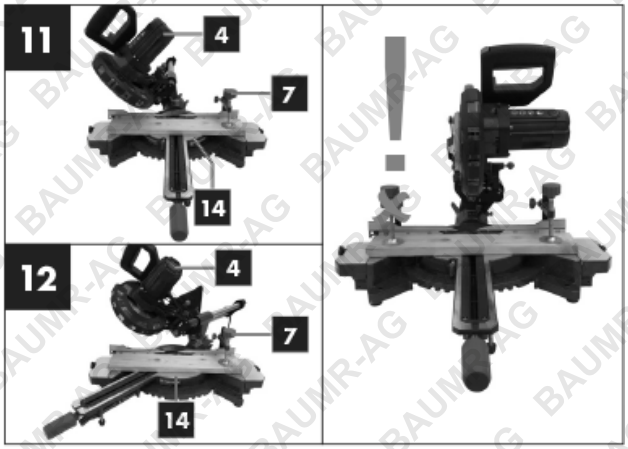


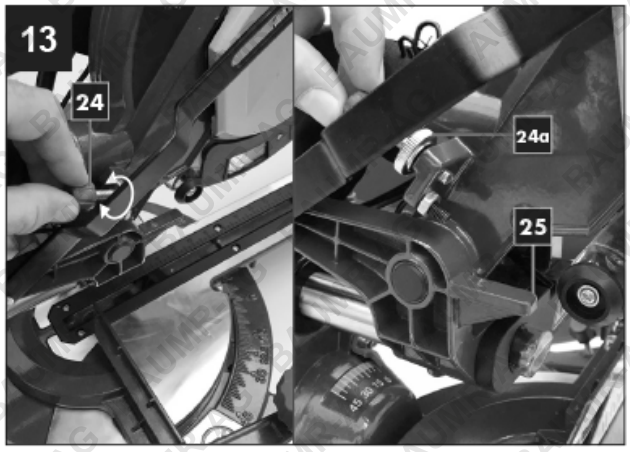


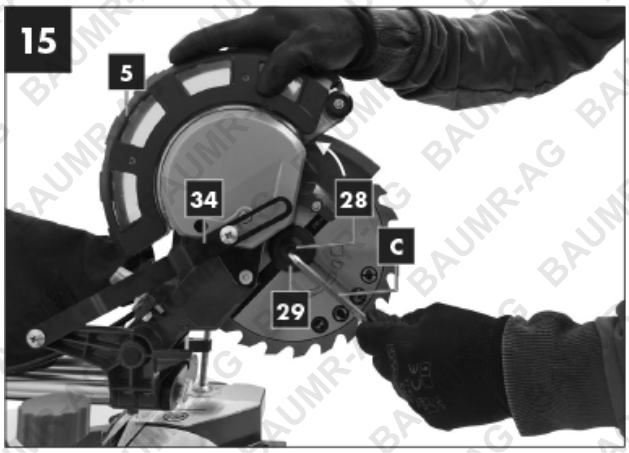


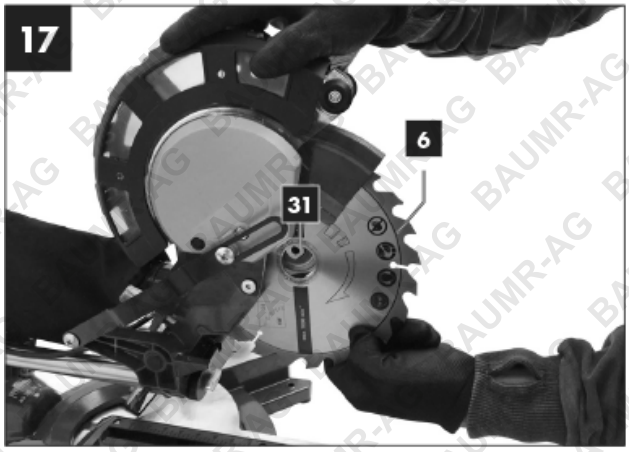


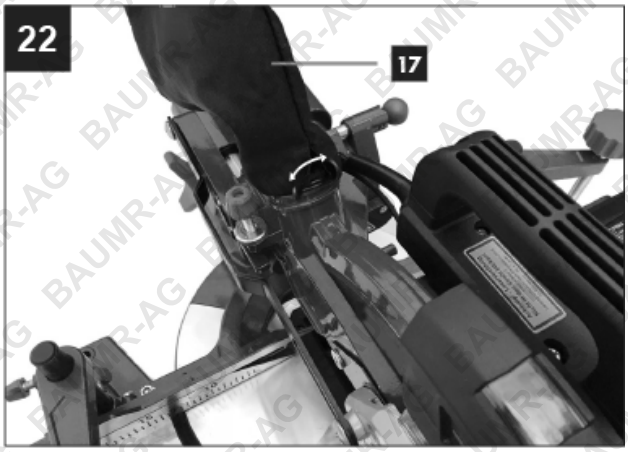












Parts Identification

Please refer to *Table of Figures*

No.	Name	No.	Name
1	Handle	19	Pointer
2	ON/OFF switch	20	Set screw for drag guide
3	Lock switch	21	Drag guide
4	Machine head	22	Set screw
5	Moving saw blade guard	23	Locking bolt
6	Saw blade	24	Screw for cutting depth limiting
7	Clamping device	25	Stop for cutting depth limiting
8	Workpiece support	26	Adjusting screw (90°)
9	Set screw for workpiece support	27	Adjusting screw (45°)
10	Table insert	28	Flange screw
11	Handle / Set screw for rotary table	29	Outer flange
12	Pointer	30	Saw shaft lock
13	Scale	31	Inner flange
14	Rotary table	32	Laser
15	Fixed saw table	33	ON/OFF switch laser
16	Stop rail 16a. Movable stop rail 16b. Set screw	34	Guide bracket
17	Sawdust bag	35	Latched position lever
18	Scale	36	Tilt protection

A	90° stop angle (not supplied)	D	Allen key, 3 mm
B	45° stop angle (not supplied)	E	Philips head screw (Laser)
C	Allen key, 6 mm		

Scope of Delivery

- Crosscut, drag and mitre saw
- 2 x Clamping device (7) (preassembled)
- 2 x Workpiece support (8) (preassembled)
- Sawdust bag (17)
- Allen key 6 mm (C)
- Allen key 3 mm (D)

Before Starting the Equipment

- Open the packaging and remove the device carefully.
- Remove the packaging material as well as the packaging and transport bracing (if available).
- Check that the delivery is complete.
- Check the device and accessory parts for transport damage.
- If possible, store the packaging until the warranty period has expired.

The device and packaging materials are not toys! Children must not be allowed to play with plastic bags, film and small parts! There is a risk of swallowing and suffocation!

- The equipment must be set up where it can stand securely.

  Secure the machine on a workbench or a base frame with 4 screws (not included in delivery) using the holes on the fixed saw table (15).
- Pull out the pre-installed tilt protection (36) completely and secure it with an Allen key (D).
- All covers and safety devices have to be properly fitted before the equipment is switched on.
- It must be possible for the blade to run freely.
- When working with wood that has been processed before, watch out for foreign bodies such as nails or screws, etc.
- Before you press the ON/OFF switch check that the saw blade is fitted correctly. Moving parts must run smoothly.
- Before you connect the equipment to the power supply make sure the data on the rating plate are identical to the mains data.

Checking the Moving Saw Blade Guard Safety Device

The saw blade guard protects against accidental contact with the saw blade and from chips flying around.

Check Function

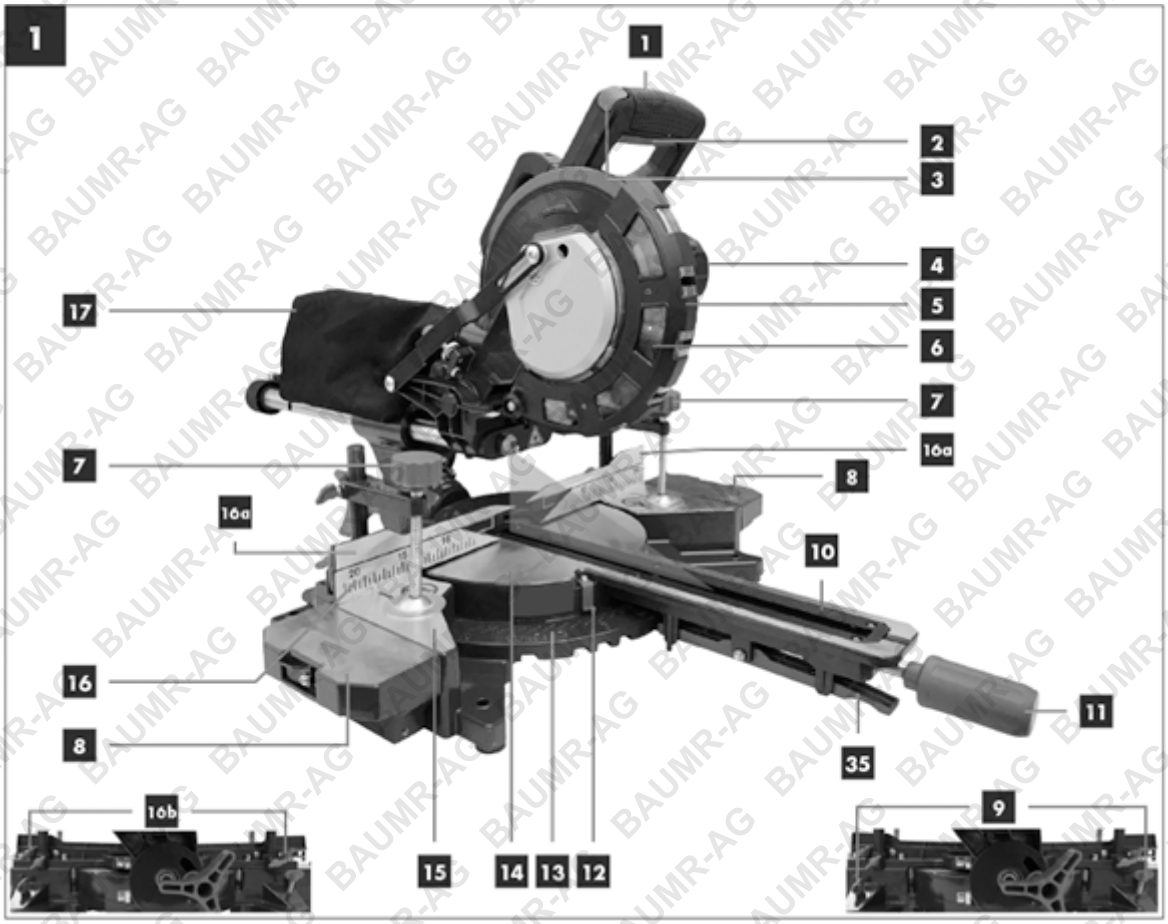
To do so, fold the saw downwards:

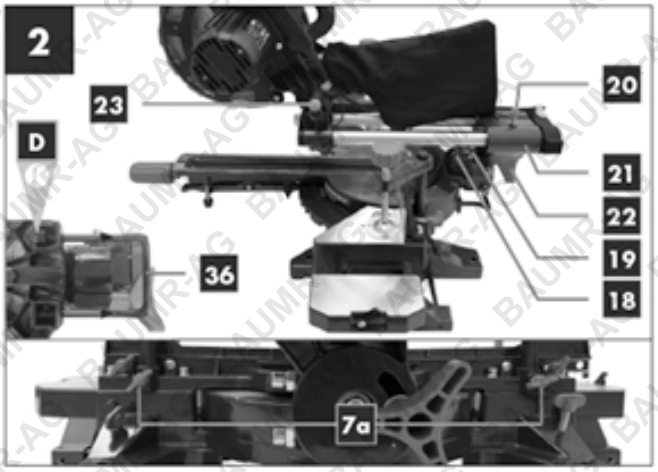
- The saw blade guard must provide free access to the saw blade without touching other parts.
- When folding the saw upwards into the starting position, the saw blade guard must cover the saw blade automatically.

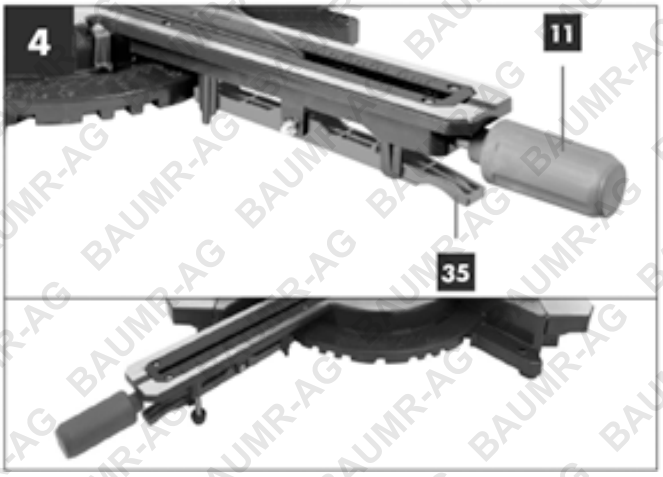
Attachment and Operation

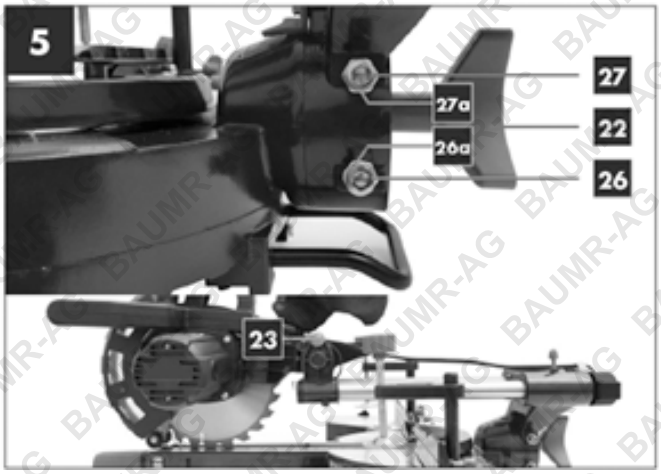
Attaching the Crosscut, Drag and Mitre Saw

Please refer to figures 1, 2, 4 and 5.

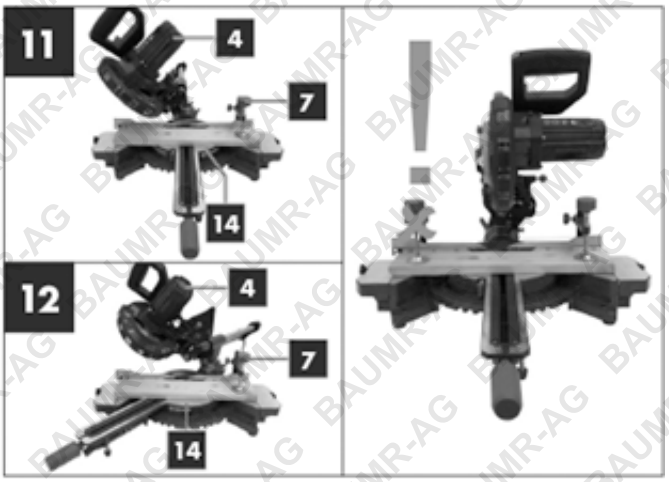








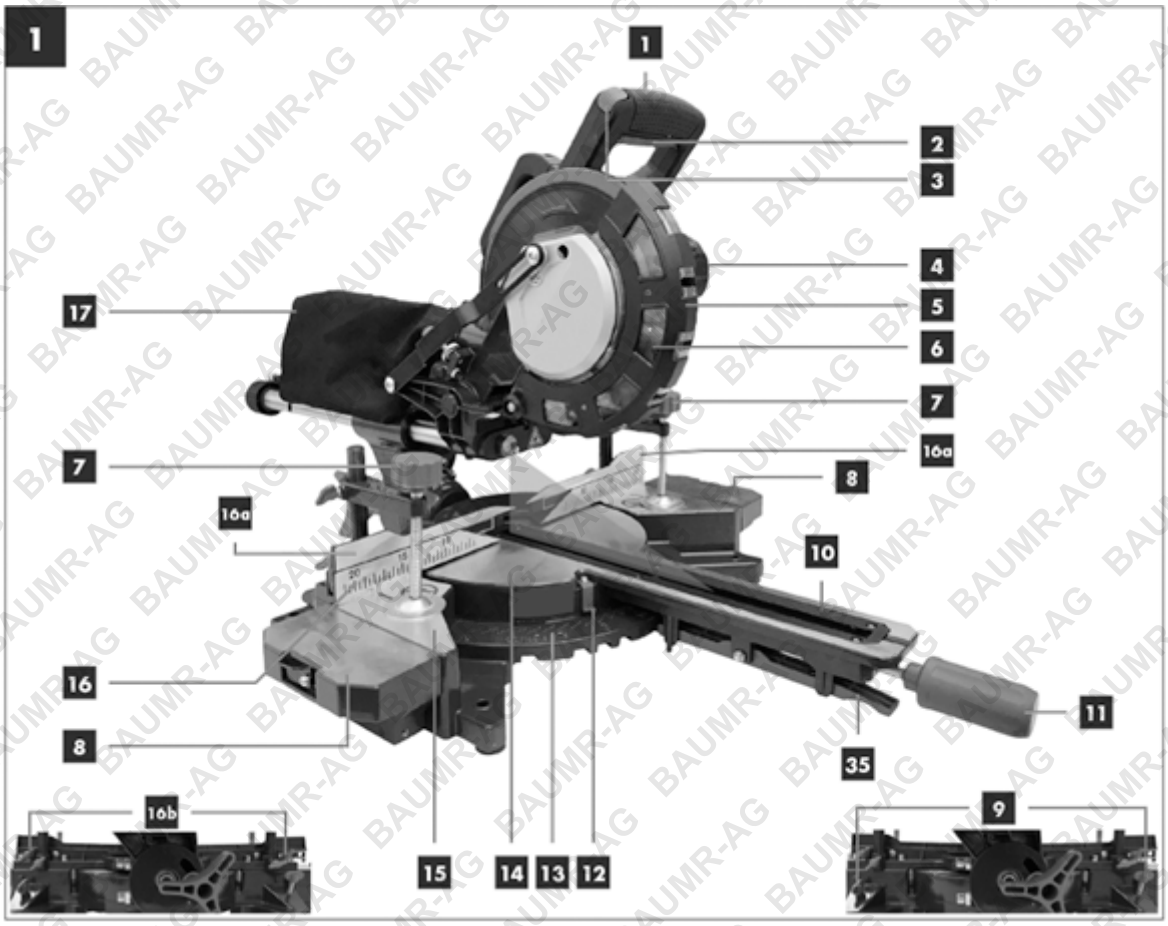
1. In order to adjust the rotary table (**14**), loosen the handle (**11**) approximately 2 turns and pull up the latched position lever (**35**) with your index finger.
2. Turn the rotary table (**14**) and pointer (**12**) to the desired angle measurement on the scale (**13**) and use the handle (**11**) to secure it.
3. Pressing the machine head (**4**) lightly downwards and removing the locking bolt (**23**) from the motor bracket at the same time disengages the saw from the lowest position.
4. Swing the machine head (**4**) up.
5. It is possible to secure the clamping devices (**7**) to the left or right on the fixed saw table (**15**). Insert the clamping devices (**7**) in the holes on the rear side of the stop rail (**16**) and secure it with the star grip screws (**7a**).
6. For 0°- 45° mitre cuts, the clamping device (**7**) must only be mounted on the right side (see fig. 11-12).

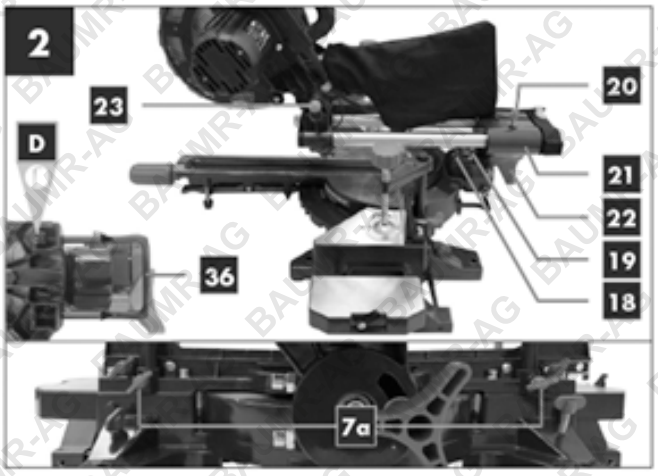


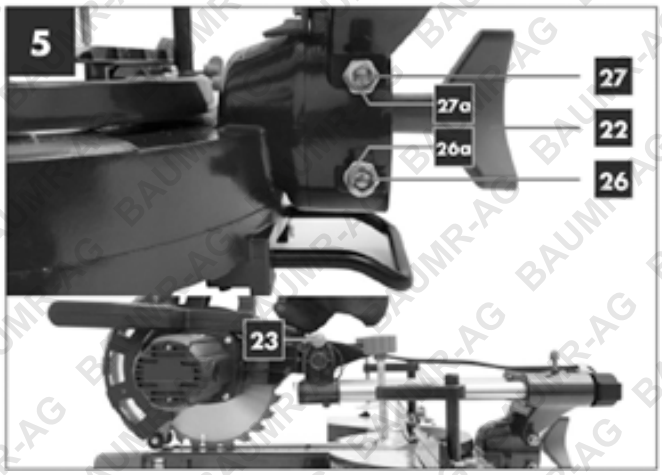
7. It is possible to tilt the machine head (**4**) a max. 45° to the left by loosening the set screw (**22**).
8. Workpiece supports (**8**) must always be secured and used during work. Set the desired table size by loosening the set screw (**9**). Then tighten the set screw (**9**) again.

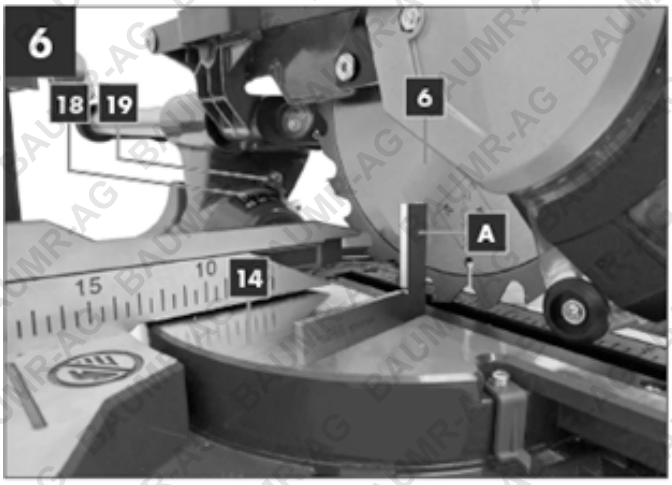
Precision Adjustment of the Stop for Crosscut 90°

Please refer to figures 1, 2, 5 and 6.







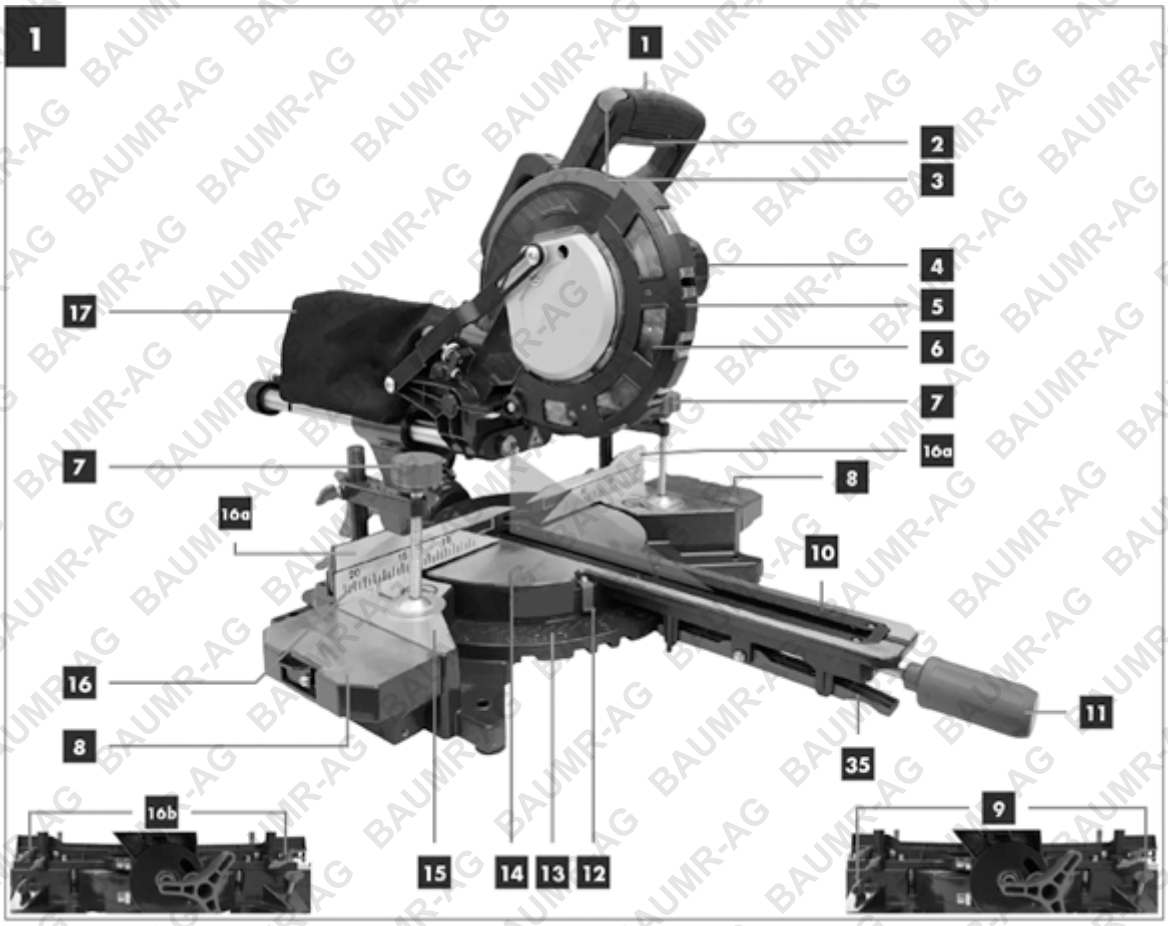


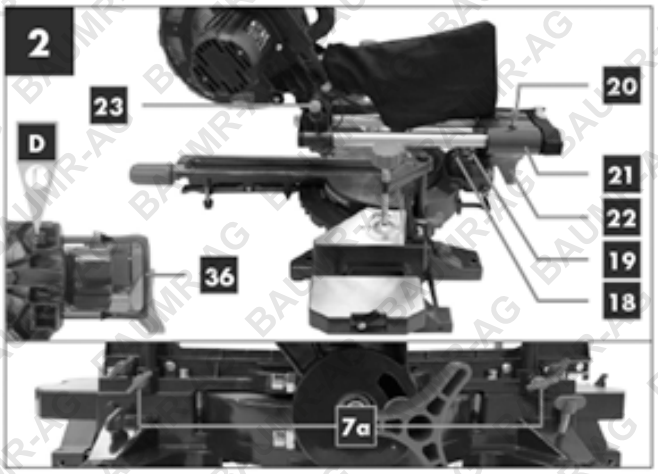
No stop angle included.

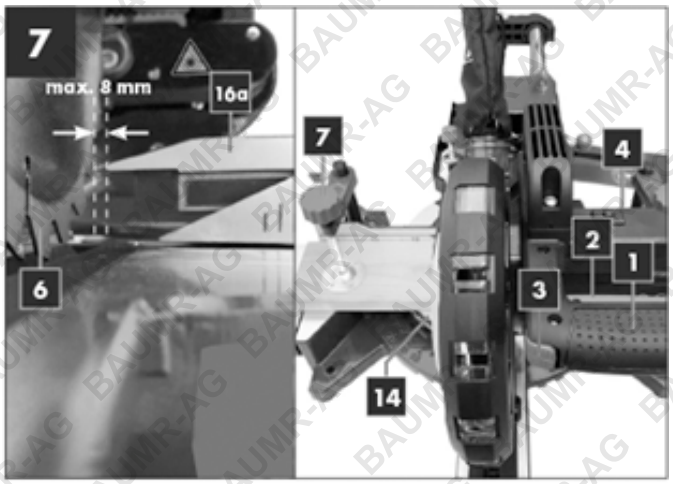
1. Lower the machine head (**4**) and secure it using the locking bolt (**23**).
2. Loosen the set screw (**22**).
3. Position the angle stop (A) between the saw blade (**6**) and the rotary table (**14**).
4. Loosen the lock nut (**26a**).
5. Adjust the adjusting screw (**26**) until the angle between the saw blade (**6**) and rotary table (**14**) is 90°.
6. Re-tighten the lock nut (**26a**).
7. Subsequently, check the position of the angle indicator. If necessary, loosen the pointer (**19**) using a Philips screwdriver, set to position 0° on the angle scale (**18**) and re-tighten the retaining screw.

Crosscut 90° and Turntable 0°

Please refer to figures 1, 2, and 7.







In the case of cutting widths up to approx. 100 mm it is possible to fix the traction function of the saw with the set screw (**20**) in the rear position. In this position the machine can be operated in cross cutting mode. If the cutting width is over 100 mm then it is necessary to ensure that the set screw (**20**) is loose and the machine head (**4**) can move.

Attention! For 90° crosscuts, the moveable stop rail (**16a**) must be fixed in the inner position.

1. Open the set screw (**16b**) for the moveable stop rail (**16a**) and push the moveable stop rail (**16a**) inwards.
2. The moveable stop rail (**16a**) must be locked in a position far enough from the inner position that the distance between the stop rail (16a) and the saw blade (**6**) is no more than 8 mm.
3. Before making the cut, check that the stop rail (**16a**) and the saw blade (**6**) cannot collide.
4. Re-tighten the set screw (**16b**).
5. Move the machine head (**4**) to its upper position.
6. Use the handle (**1**) to push back the machine head (**4**) and fix it in this position if required (dependent on the cutting width).
7. Place the piece of wood to be cut at the stop rail (**16**) and on the turntable (**14**).
8. Lock the material with the clamping devices (**7**) on the fixed saw table (**15**) to prevent the material from moving during the cutting operation.
9. Release the lock switch (**3**) and press the ON/OFF switch (**2**) to start the motor.
10. **With the drag guide (21) fixed in place (21)**:

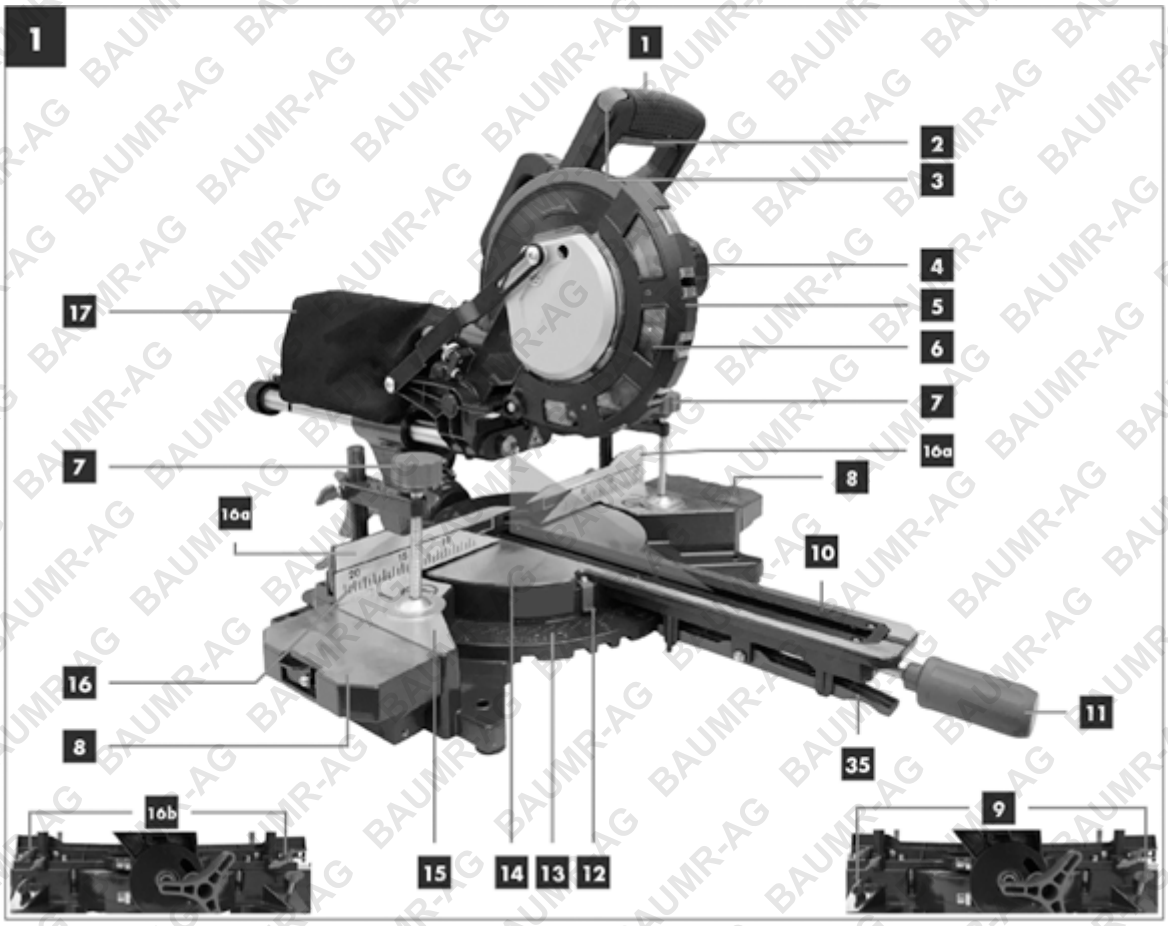
    Use the handle (**1**) to move the machine head (**4**) steadily and with light pressure downwards until the saw blade (6) has completely cut through the work piece.
11. **With the drag guide (21) not fixed in place (21)**:

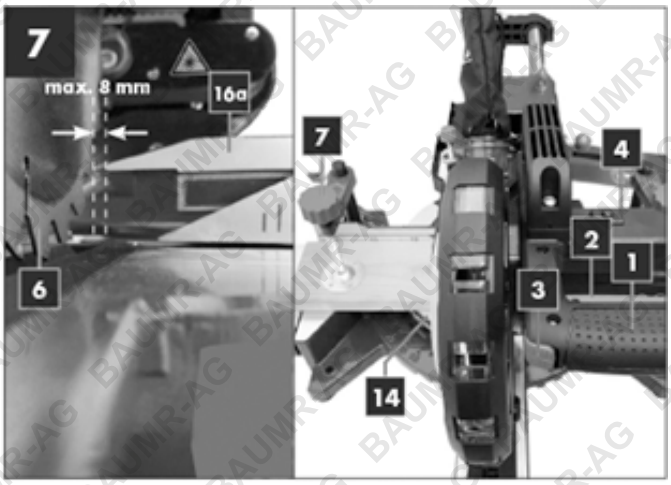
    Pull the machine head (**4**) all the way to the front. Lower the handle (**1**) to the very bottom by applying steady and light downward pressure. Now push the machine head (**4**) slowly and steadily to the very back until the saw blade (**6**) has completely cut through the work piece.
12. When the cutting operation is completed, move the machine head back to its upper (home) position and release the ON/OFF button (**2**).

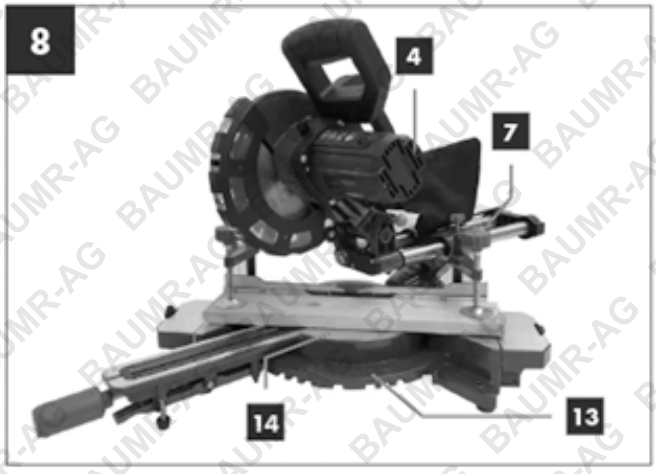
The machine executes an upward stroke automatically due to the return spring, i.e. do not release the handle (1) after completing the cut; instead allow the machine head to move upwards slowly whilst applying light counter pressure.

Crosscut 90° and Turntable 0° - 45°

Please refer to figures 1, 7, 8.







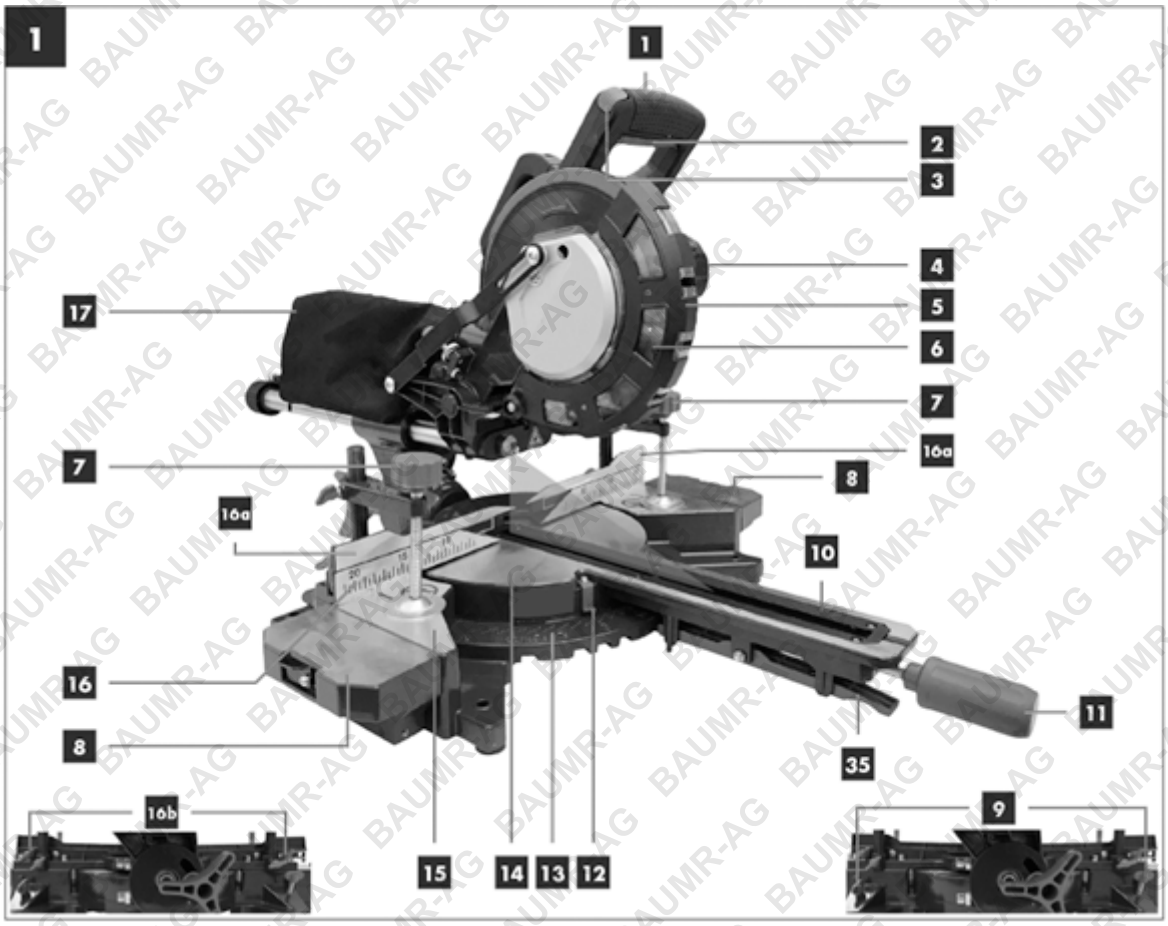
The crosscut, drag and mitre saw can be used to make crosscuts of 0° -45° to the left and 0° -45° to the right in relation to the stop rail.

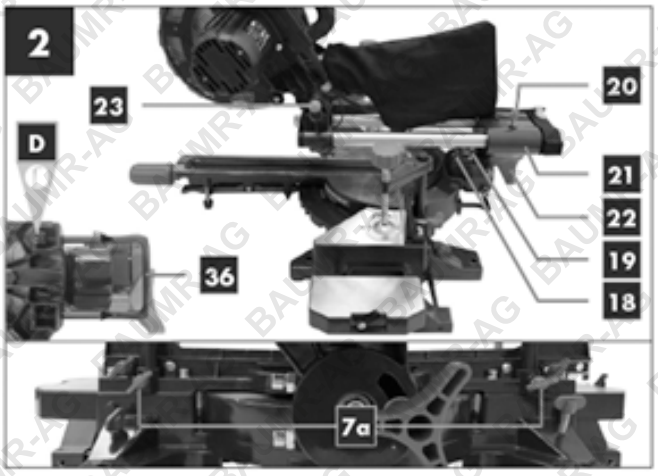
Important! For 90° crosscuts, the moveable stop rail (16a) must be fixed in the inner position.

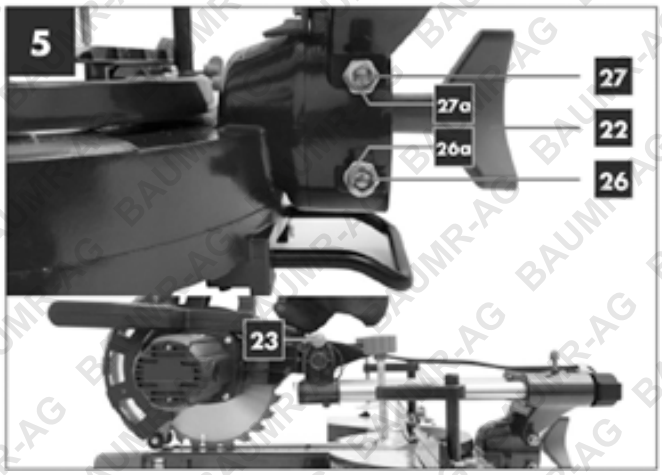
1. Open the set screw (**16b**) for the moveable stop rail (**16a**) and push the moveable stop rail (**16a**) inwards.
2. The moveable stop rail (**16a**) must be fixed far enough in front of the innermost position that the distance between the stop rail (**16a**) and the saw blade (**6**) amounts to a minimum of 8 mm.
3. Before making the cut, check that the stop rail (**16a**) and the saw blade (**6**) cannot collide.
4. Secure the set screw (**16b**) again.
5. Loosen the handle (**11**) if tightened, pull up the latched position lever (**35**) with your index finger and use the handle (**11**) to set the rotary table (**14**) to the desired angle.
6. The pointer (**12**) on the rotary table must match the desired angle on the scale (**13**) on the fixed saw table (**15**).
7. Re-tighten the handle (**11**) to secure the rotary table (**14**).
8. Cut as described under Crosscut 90° and Turntable 0°.

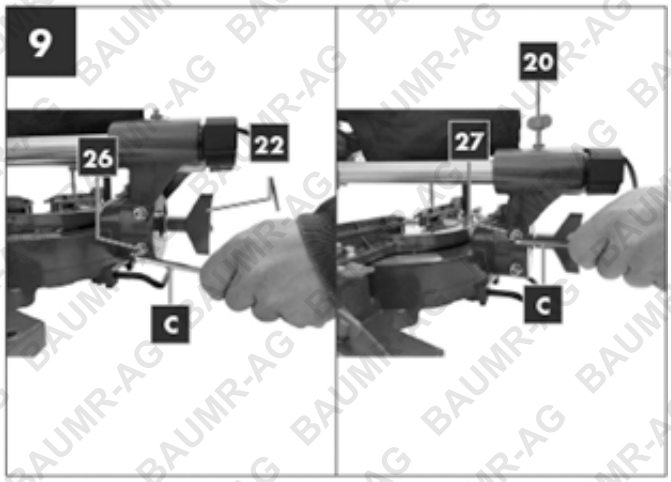
Precision Adjustment of the Stop for Mitre Cut 45°

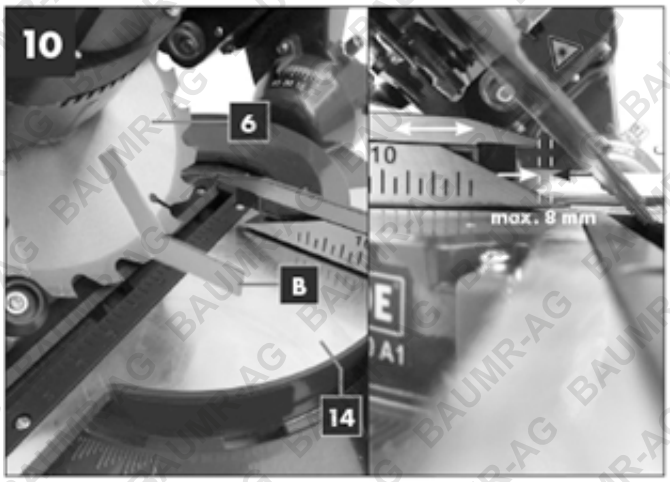
Please refer to figures 1, 2, 5, 9 and 10.











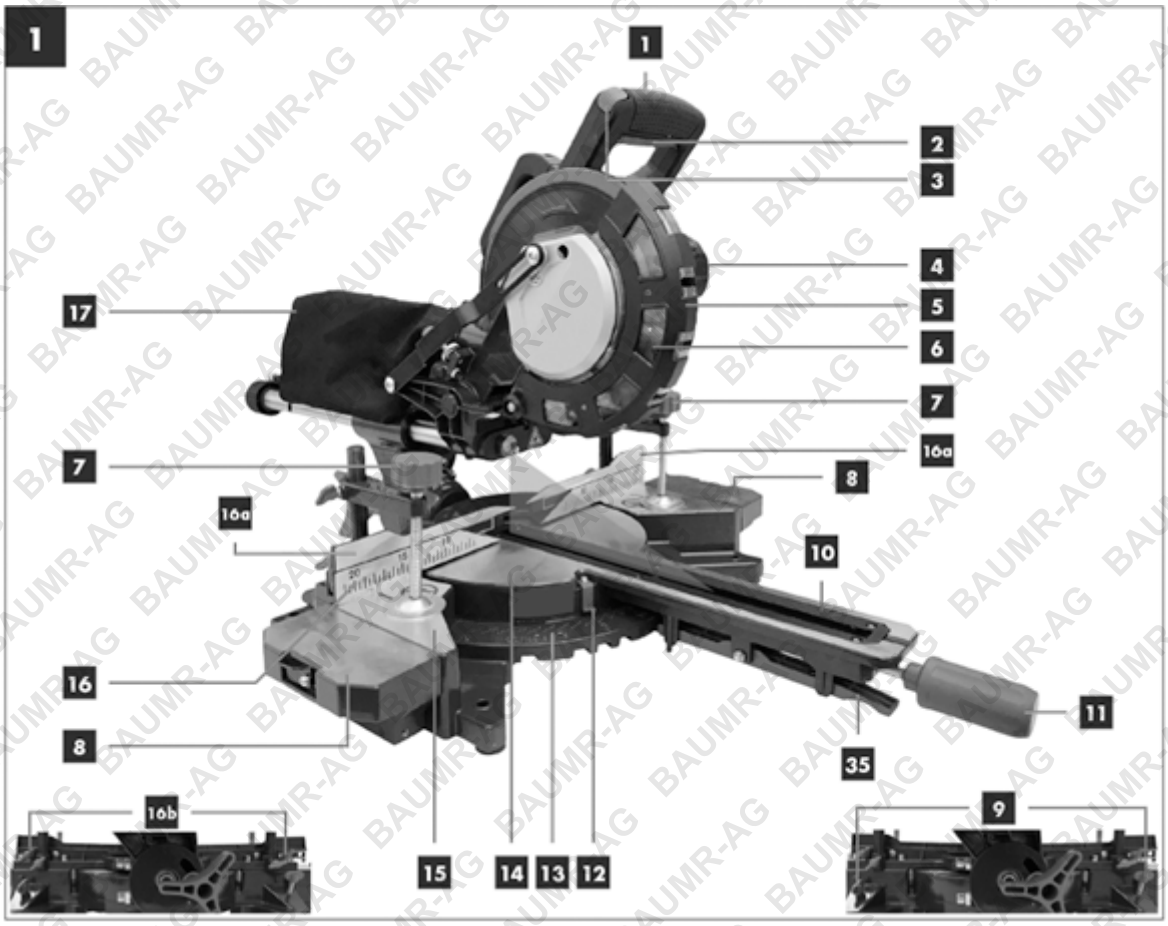
No stop angle included.

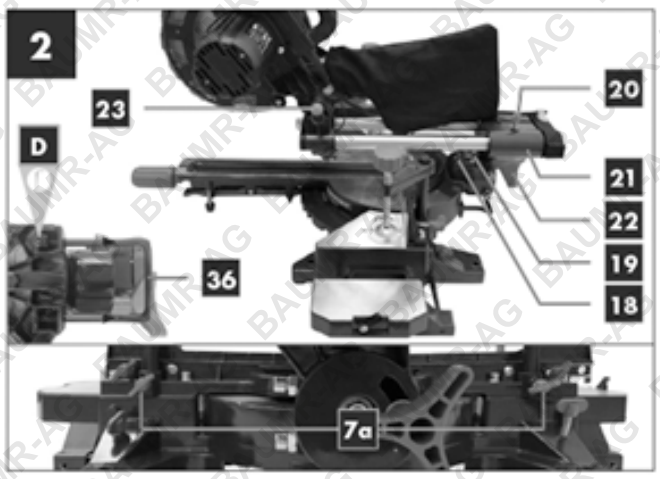
1. Lower the machine head (**4**) and secure it using the locking bolt (**23**).
2. Fix the rotary table (**14**) in the 0° position.

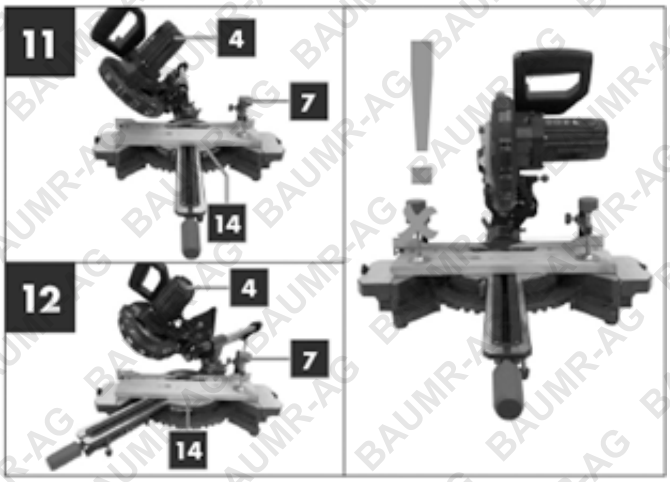
   ATTENTION! For mitre cuts (inclined saw head), the **left side** of the moveable stop rails (**16a**) must be fixed in the outer position.
3. Open the set screw (**16b**) for the moveable stop rail (**16a**) and push the moveable stop rail (**16a**) outwards.
4. The moveable stop rail (**16a**) must be fixed far enough in front of the innermost position that the distance between the stop rail (**16a**) and the saw blade (**6**) amounts to a maximum of 8 mm.
5. The **right side** of the moveable stop rails (**16a**) must be in the inner position.
6. Before making a cut, check that the stop rail (**16a**) and the saw blade (**6**) cannot collide.
7. Loosen the set screw (**22**) and use the handle (**1**) to angle the machine head (**4**) 45° to the left.
8. 45° - position angle stop (**B**) between the saw blade (**6**) and rotary table (**14**).
9. Loosen the lock nut (**27a**) and adjust the adjustment screw (**27**) until the angle between the saw blade (**6**) and the rotary table (**14**) is precisely 45°.
10. Re-tighten the lock nut (**27a**).
11. Subsequently check the position of the angle indicator. If necessary, loosen the pointer (**19**) using a Philips screwdriver, set to position 45° on the angle scale (**18**) and re-tighten the retaining screw.

Mitre Cut 0°- 45° and Turntable 0°

Please refer to figures 1, 2 and 11.







The crosscut, drag and mitre saw can be used to make mitre cuts of 0° - 45° in relation to the work face.

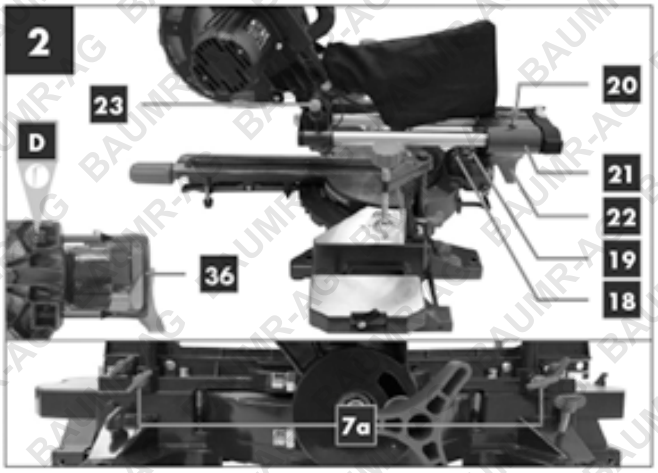
ATTENTION! For mitre cuts (inclined saw head), the **left side** of the moveable stop rails (**16a**) must be fixed in the outer position.

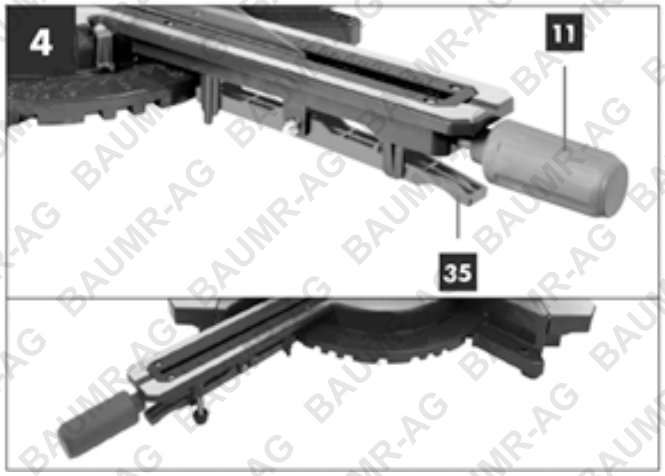
1. Open the set screw (**16b**) for the moveable stop rail (**16a**) and push the moveable stop rail (**16a**) outwards.
2. The moveable stop rail (**16a**) must be fixed far enough in front of the innermost position that the distance between the stop rail (**16a**) and the saw blade (**6**) amounts to a minimum of 8mm.

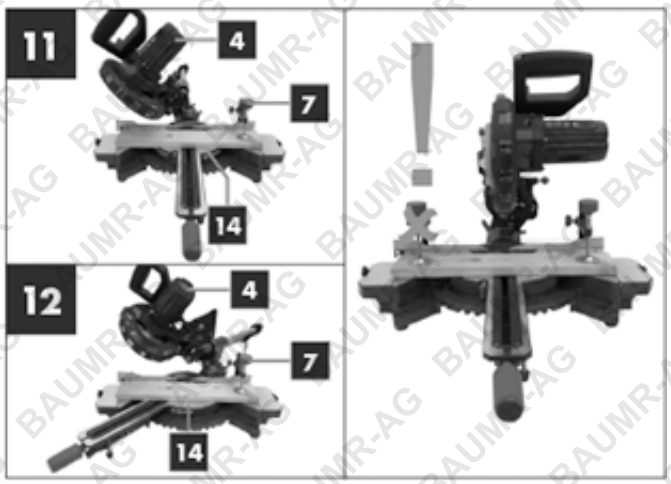
3. The **right side** of the moveable stop rails (**16a**) must be in the inner position.
4. Before making a cut, check that the stop rail (**16a**) and the saw blade (**6**) cannot collide.
5. Secure the set screw (**16b**) again.
6. Move the machine head (**4**) to the top position.
7. Fix the rotary table (**14**) in the 0° position.
8. Loosen the set screw (**22**) and use the handle (**1**) to angle the machine head (**4**) to the left, until the pointer (**19**) indicates the desired angle measurement on the scale (**18**).
9. Re-tighten the set screw (**22**).
10. Cut as described in Crosscut 90° and Turntable 0°.

Mitre Cut 0°- 45° and Turntable 0°- 45°

Please refer to figures 2, 4 and 12.







The crosscut, drag and mitre 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).

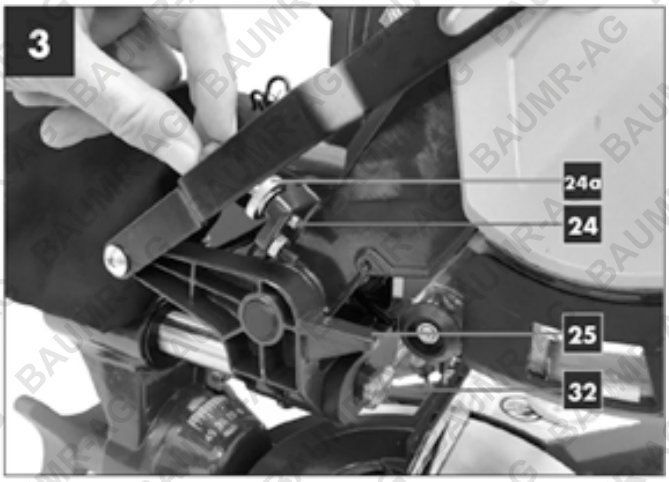
ATTENTION! For mitre cuts (inclined saw head), the **left side** of the moveable stop rails (**16a**) must be fixed in the outer position.

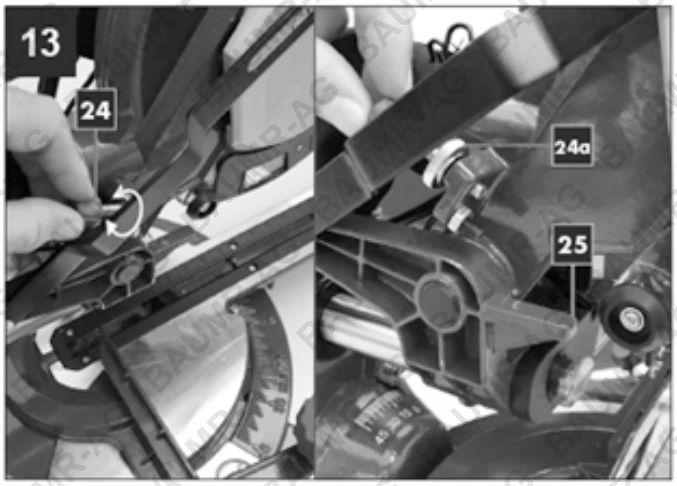
1. Open the set screw (**16b**) for the moveable stop rail (**16a**) and push the moveable stop rail (**16a**) outwards.

2. The moveable stop rail (**16a**) must be fixed far enough in front of the innermost position that the distance between the stop rail (**16a**) and the saw blade (**6**) amounts to a minimum of 8 mm.
3. Before making a cut, check that the stop rail (**16a**) and the saw blade (**6**) cannot collide.
4. Re-tighten the set screw (**16b**).
5. Move the machine head (**4**) to its upper position.
6. Release the rotary table (**14**) by loosening the handle (**11**).
7. Using the handle (**11**), set the rotary table (**14**) to the desired angle (refer also to Crosscut 90° and Turntable 0° - 45° in this regard).
8. Re-tighten the handle (**11**) to secure the rotary table (**14**).
9. Undo the set screw (**22**).
10. Use the handle (**1**) to tilt the machine head (**4**) to the left until it coincides with the required angle value (in this connection see also Mitre Cut 0°- 45° and Turntable 0°).
11. Re-tighten the set screw (**22**).
12. Cut as described under Crosscut 90° and Turntable 0°.

Limiting the Cutting Depth

Please refer to figures 3 and 13.



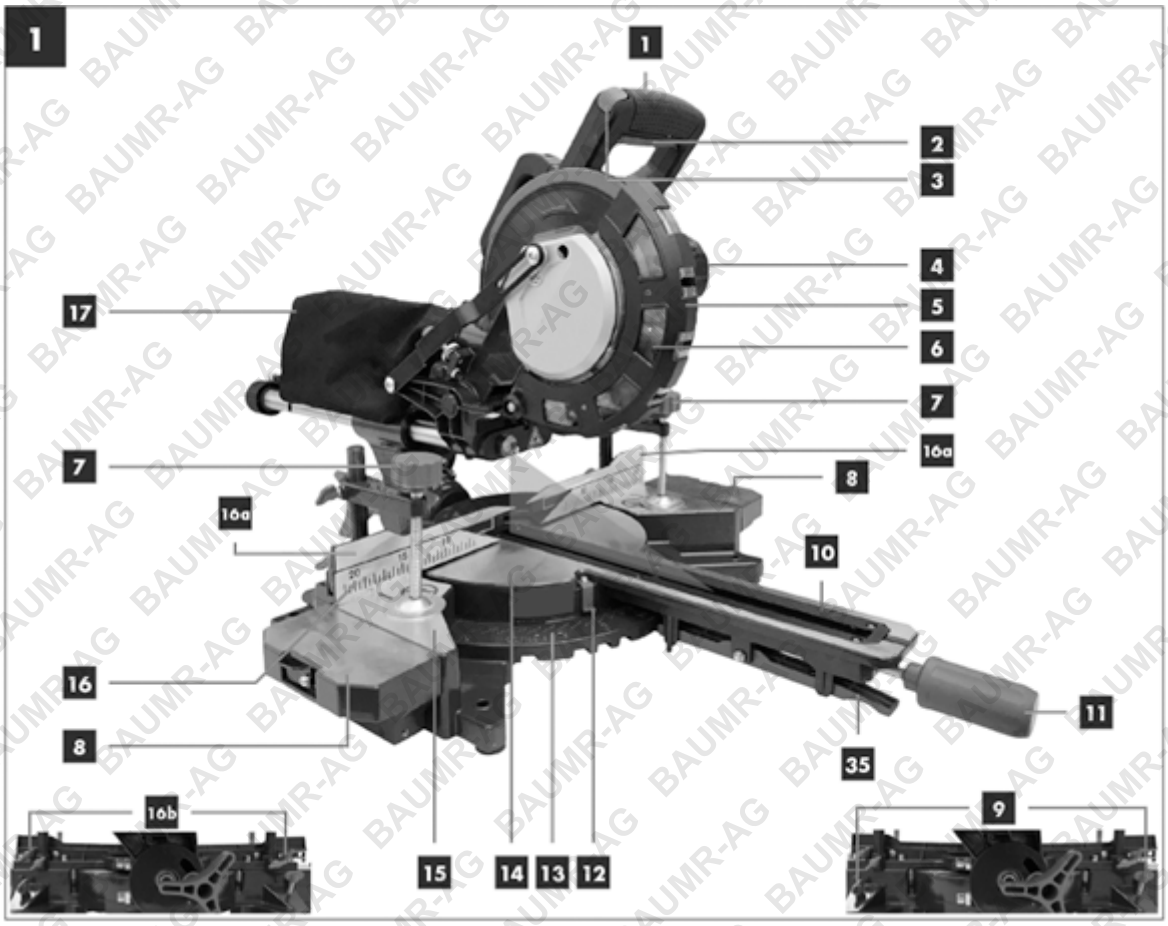


The cutting depth can be infinitely adjusted using the screw (**24**).

1. To do, this loosen the knurled nut (**24a**) on the screw (**24**).
2. Turn the screw (**24**) in or out to set the required cutting depth.
3. Then re-tighten the knurled nut (**24a**) on the screw (**24**).
4. Check the setting by completing a test cut.

Sawdust Bag

Please refer to figures 1 and 22.



The saw is equipped with a debris bag (**17**) for sawdust and chips.

1. Squeeze together the metal ring on the dust bag and attach it to the outlet opening in the motor area.
2. The debris bag (**17**) can be emptied by means of a zipper at the bottom.

Connection to an External Dust Extractor

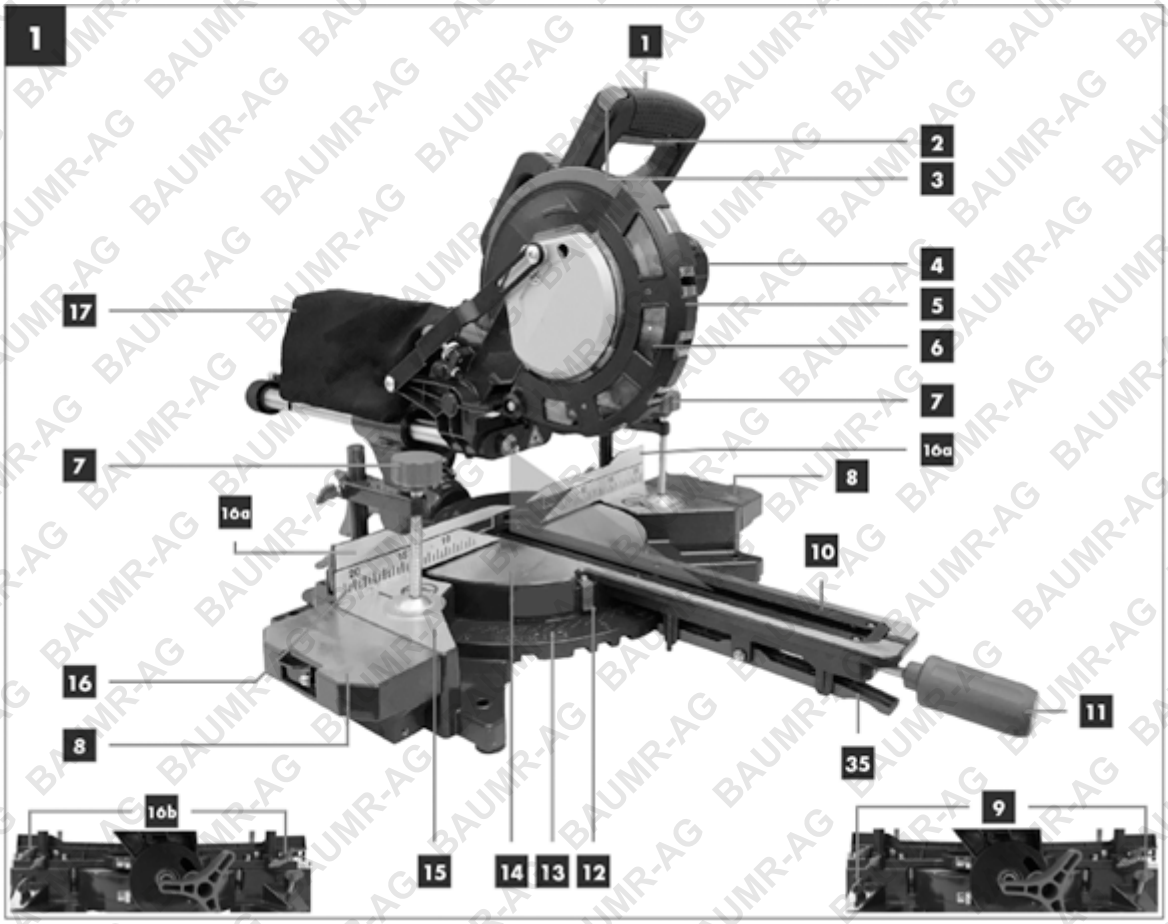
For dust extraction, a vacuum hose can also be connected to the dust extraction spout.

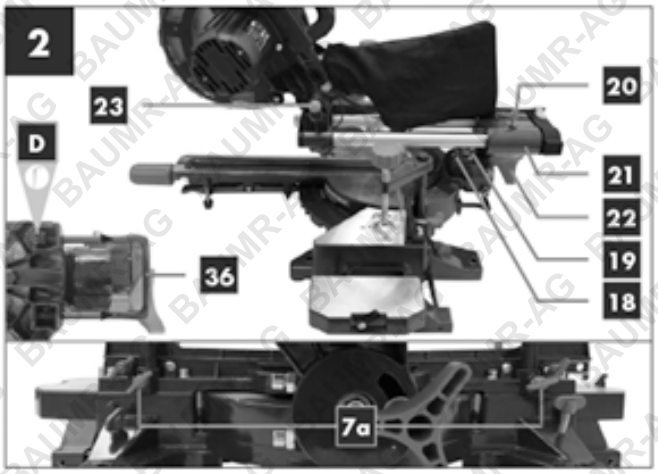
1. Connect the vacuum hose with the dust extraction spout.
2. The industrial vacuum cleaner must be suitable for the material being worked.
3. When vacuuming dust that is especially detrimental to health or carcinogenic, use a special vacuum cleaner.

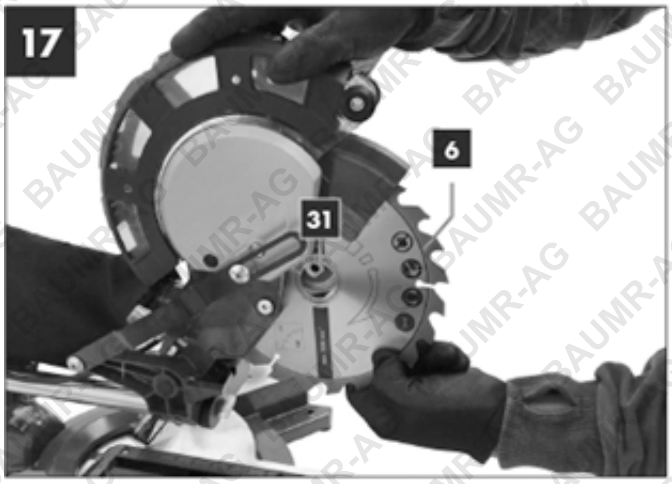
Changing the Saw Blade

Please refer to figures 1, 2, 14 and 17.

Remove the power plug! Wear safety gloves when changing the saw blade. Risk of injury!







1. Swing the machine head (**4**) upwards and lock with the locking bolt (**23**).
2. Loosen the retaining screw (**5a**) of the cover using a screwdriver.

   WARNING! Do not fully remove this screw.
3. Fold the saw blade guard (**5**) upwards until the saw blade guard (**5**) is above the flange screw (**28**).
4. With one hand insert the Allen key (**C**) in the flange screw (**29**).
5. Hold the Allen key (**C**) and slowly close the saw blade guard (**5**) until it touches the Allen key (**C**).
6. Firmly press the saw shaft lock (**30**) and slowly rotate the flange screw (**28**) in clockwise direction. The saw shaft lock (**30**) engages after no more than one rotation.
7. Now, using a little more force, slacken the flange screw (**29**) in the clockwise direction.
8. Turn the flange screw (**28**) right out and remove the outer flange (**29**).
9. Take the blade (**6**) off the inner flange (**31**) and pull out downwards.
10. Carefully clean the flange screw (**28**), outer flange (**29**) and inner flange (**32**).
11. Fit and fasten the new saw blade (**6**) in reverse order.

    IMPORTANT! The cutting angle of the teeth, in other words the direction of rotation of the saw blade (6) must coincide with the direction of the arrow on the housing.
12. Before continuing your work make sure that all safety devices are in good working condition.

    IMPORTANT! Every time that you change the saw blade (6), check to see that it spins freely in the table insert (10) in both perpendicular and 45° angle settings.

IMPORTANT! The work to change and align the saw blade (6) must be carried out correctly.

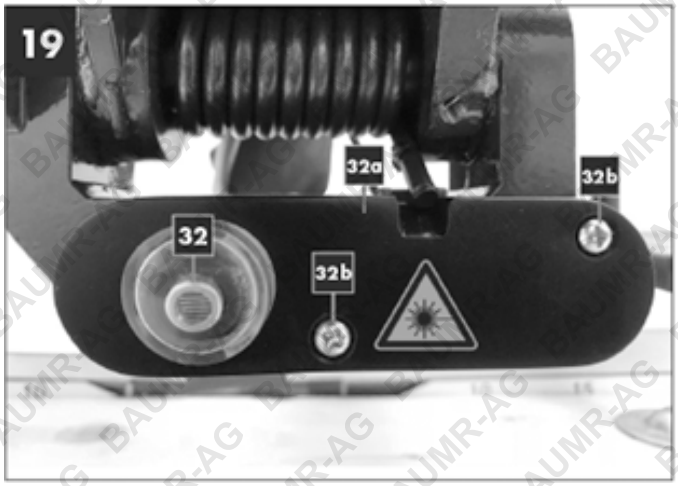
Using the Laser

Please refer to figure 18.

1. To switch ON: Press the ON/OFF switch laser (**33**) 1x. A laser line is projected onto the material you wish to process, providing an exact guide for the cut.
2. To switch OFF: Press again the ON/OFF switch laser (**33**).

Adjusting the Laser

Please refer to figures 19 and 20.



If the laser (**32**) ceases to indicate the correct cutting line, you can readjust the laser. To do so:

1. Open the screws (**32b**) and remove the front cover (**32a**).
2. Loosen the Philips head screws (**E**) and set the laser by moving sideways until the laser beam strikes the teeth of the saw blade (**6**).
3. After adjusting and tightening the laser, mount the front cover by tightening both screws (**32b**) by hand.

Maintenance, Transport and Storage

WARNING! Prior to any adjustment, maintenance or service work, disconnect the mains power plug!

General Maintenance Measures

Wipe chips and dust off the machine from time to time using a cloth. In order to extend the service life of the tool, oil the rotary parts once monthly. Do not oil the motor. When cleaning the plastic do not use corrosive products.

Cleaning the Moving Saw Blade Guard Safety Device

Always check the saw blade guard for debris before using the machine. Remove old sawdust and splinters using a brush or similar tool.

Replacing the Table Insert

DANGER! With a damaged table insert (10) there is a risk of small parts getting stuck between table insert and saw blade, blocking the saw blade. Immediately replace damaged table inserts!

1. Remove screws at table insert. If required, turn rotary table and incline saw head to be able to reach the screws.
2. Remove table insert.
3. Install new table insert.
4. Tighten the screws at table insert.

Brush Inspection

Check the carbon brushes after the first 50 operating hours with a new machine, or when new brushes have been fitted. After carrying out the first check, repeat the check every 10 operating hours.

If the carbon is worn to a length of 6 mm, or if the spring or contact wire are burned or damaged, it is necessary to replace both brushes. If the brushes are found to be usable following removal, it is possible to reinstall them.

When servicing the carbon brushes, open the two latches anticlockwise (as shown in Figure 21). Then remove the carbon brushes.

Replace the carbon brushes in the reverse order.

Transport

1. Tighten the handle (11) to lock the rotary table.
2. Press the machine head (4) downwards and secure with the locking bolt (23).
3. Fix the saw's drag function with the locking screw for drag guide (20) in rear position.
4. Carry the equipment by the fixed saw table (15).
5. When reassembling the equipment, proceed as described in Before Starting the Equipment.

Storage

- Store the device and its accessories in a dark, dry and frost proof place that is inaccessible to children. The optimum storage temperature is between 5 and 30˚C.
- Store the electrical tool in its original packaging.
- Cover the electrical tool in order to protect it from dust and moisture.
- Store the operating manual with the electrical tool.

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.
Saw cut is rough or wavy	Saw blade dull, tooth shape not appropriate for the material thickness.	Re-sharpen 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.

Specifications

Model	CMS-305
Rated Power	2000W
No-load Speed	5800 rpm
Blade Diameter	210mm
Blade Teeth	24T
Swivel Range	±45°
Bevel Tilt Range	0° - 45° to the left
Cutting Capacity	0°/90°: 340 x 65mm 0°/45°: 240 x 40mm
Laser Class	2
Input Voltage	240VAC / 50HZ
Power Plug	Australian Standard

Note: Minimal Assembly required.

Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

Bäumr-AG®
.com.au