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Originalfassung

DE BETRIEBSANLEITUNG

KAPP- & GEHRUNGSSÄGE

Übersetzung / Translation

EN USER MANUAL

MITER SAW

**ES INSTRUCCIONES DE
SERVICIO**

SIERRA TRONZADORA E INGLETADORA



ZI-KGS255DS

EAN: 9120039234052





11 PREFACE (EN)

Dear Customer!

This manual contains information and important instructions for the installation and correct use of the miter saw ZI-KGS255DS.

Following the usual commercial name of the device (see cover) is substituted in this manual with the name "machine".



This manual is part of the product and shall not be stored separately from the product. Save it for later reference and if you let other people use the product, add this instruction manual to the product.

Please read and obey the security instructions!

Due to constant advancements in product design, construction pictures and content may diverse slightly. However, if you discover any errors, inform us please.

Technical specifications are subject to changes!

Please check the product contents immediately after receipt for any eventual transport damage or missing parts.

Claims from transport damage or missing parts must be placed immediately after initial product receipt and unpacking before putting the product into operation.

Please understand that later claims cannot be accepted anymore.

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12 SAFETY

This section contains information and important notes on safe commissioning and handling of the machine.



For your personal safety, please read these operating instructions carefully before commissioning. This will enable you to handle the machine safely and prevent misunderstandings as well as personal injury and damage to property. Also observe the symbols and pictograms used on the machine as well as the safety and danger information!

12.1 Intended Use of the Machine

The machine is intended exclusively for the following activities:

Cross-cut and mitre cutting of wood and materials with similar physical properties to wood within the specified technical limits.

ZIPPER-MASCHINEN assumes no responsibility or warranty for any other use or use beyond this and for any resulting damage to property or injury.

12.1.1 Technical Restrictions

The machine is intended for use under the following ambient conditions:

Rel. Humidity:	max. 65 %
Temperature (operational)	+5° C bis +40° C
Temperature (Storage, Transport)	-20° C bis +55° C

12.1.2 Prohibited Use / Forseeable Misuse

- Operation of the machine without adequate physical and mental aptitude
- Operating the machine without knowledge of the operating instructions
- Changes in the design of the machine
- Operating the machine in a potentially explosive environment (machine can generate ignition sparks during operation)
- Operation of the machine in closed rooms without chip and dust extraction (a normal household vacuum cleaner is not suitable as an extraction device).
- Operating the machine outside the limits specified in this manual
- Remove the safety markings attached to the machine.
- Modify, circumvent or disable the safety devices of the machine.
- Cutting of materials with dimensions outside the limits specified in this manual
- Use of tools which do not meet the safety requirements of the standard for machine tools for woodworking (EN847-1).

The improper use or disregard of the versions and instructions described in this manual will result in the voiding of all warranty and compensation claims against Holzmann Maschinen GmbH.

12.2 User Requirements

The physical and mental suitability as well as knowledge and understanding of the operating instructions are prerequisites for operating the machine. Persons who, because of their physical, sensory or mental abilities or their inexperience or ignorance, are unable to operate the machinery safely must not use it without the supervision or instruction by a responsible person.

Please note that local laws and regulations may stipulate the minimum age of the operator and restrict the use of this machine!



Put on your personal protective equipment before working on the machine.

Work on electrical components or equipment may only be carried out by a qualified electrician or under the instruction and supervision of a qualified electrician.



12.3 Safety Devices

The machine is equipped with the following safety devices:

	<ul style="list-style-type: none">• Safety guard, saw blade protection
	<ul style="list-style-type: none">• Clamping device and stop/fence

12.4 General Safety Instructions

To avoid malfunctions, damage and health hazards when working with the machine, in addition to the general rules for safe working, the following points must be observed:

- Before commissioning, check the machine for completeness and function.
- Choose a level, vibration-free, non-slip surface for the installation location.
- Ensure sufficient space around the machine!
- Ensure sufficient lighting conditions at the workplace to avoid stroboscopic effects!
- Only use perfect tools that are free of cracks and other defects (e.g. deformations).
- Remove setting tools from the machine before switching on.
- Keep the area around the machine free of obstacles (e.g. dust, chips, cut workpiece parts etc.).
- Check the strength of the machine connections before each use.
- Never leave the running machine unattended. If necessary, stop the machine before leaving.
- The machine may only be operated, serviced or repaired by persons who are familiar with it and who have been informed of the dangers arising in the course of this work.
- Ensure that unauthorised persons maintain an appropriate safety distance from the machine and, in particular, keep children away from the machine..
- Wear suitable protective equipment (eye protection, dust mask, respiratory protection, ear protection, gloves when handling tools) as well as close-fitting work protective clothing - never wear loose clothing, ties, jewellery, etc. - danger of being drawn in!
- Work with gloves on rotating parts is not permitted!
- Hide long hair under hair protection.
- Do not remove any sections or other parts of the workpiece from the cutting area while the machine is running!
- Do not remove splinters and chips by hand! Use a sliding stick for this purpose!
- Always work with care and the necessary caution and never use excessive force.
- Do not overload the machine!
- Do not work on the machine if you are tired, not concentrated or under the influence of medication, alcohol or drugs!
- Do not use the machine in areas where vapours from paints, solvents or flammable liquids represent a potential danger (danger of fire or explosion!).
- Do not smoke in the immediate vicinity of the machine (fire hazard)!
- Make sure that the ON/OFF switch is in the "OFF" position before connecting the machine to the power source.
- Do not use the machine if it cannot be switched on and off with the ON/OFF switch.
- Make sure that the device is earthed.
- Only use suitable extension cords.
- Always shut down the machine before carrying out any conversion, adjustment, measuring, cleaning, maintenance or repair work and always disconnect it from the power supply for



maintenance or repair work. Before starting any work on the machine, wait until all tools or machine parts have come to a complete standstill and secure the machine against unintentional restarting.

12.5 Electrical Safety

- Only use suitable extension cords. (cross-section 1.5mm² for length up to 25m; H05VV-F)
- A damaged or tangled cable increases the risk of electric shock. Handle the cable with care. Never use the cable to carry, pull or disconnect the power tool. Keep the cable away from heat, oil, sharp edges or moving parts.
- Proper plugs and sockets reduce the risk of electric shock.
- Water entry into machine increases the risk of electric shock. Do not expose machine to rain or moisture.
- The machine may only be used in humid environments if the power source is protected by a residual current circuit breaker.
- Do not use the power tool if it cannot be turned on and off with the ON/OFF switch.
- Avoid contact of the body with grounded surfaces such as pipes, radiators, ovens and refrigerators. There is an increased risk of electric shock if the body is earthed.

12.6 Special Safety Instructions for Woodworking machines

- Work with gloves on rotating parts is not permitted!
- During operation of the machine wood dust is generated. Therefore, connect the machine to a suitable dust collection system for dust and chips during installation!
- Always switch on the dust collection system before you start machining the workpiece!
- Never remove sections or other parts of the workpiece from the cutting area while the machine is running.
- When using milling tools with a diameter of ≥ 16 mm and circular saw blades, these must comply with EN 847-1:2013 and EN 847-2:2013; tool carriers must comply with EN 847-3:2013;
- Excessive noise can cause hearing damage and temporary or permanent hearing loss. Wear hearing protection certified to health and safety regulations to limit noise exposure.
- Replace cracked and deformed saw blades immediately, they cannot be repaired.
- Use clean and sharpened saw blades, which are less sensitive to malfunctions and easier to guide.
- If possible, use clamps to hold/fix the workpiece. If you hold the workpiece by hand, always hold your hand at least 100 mm from both sides of the saw blade. Do not use this saw to cut parts that are too small to be securely clamped or held by hand.
- Never cross the intended cutting line in front of or behind the saw blade.
- Check your workpiece before cutting. If the workpiece is bent or warped, clamp it with the outside bent surface against the stop. Always make sure that there is no gap between the workpiece, stop and table along the cutting line. Bent or warped workpieces can twist or move and can cause jamming of the circular saw blade during cutting. There must also be no nails or foreign objects in the workpiece.
- Cut only one workpiece at the same time.
- Whenever you change the mitre angle setting, make sure that the adjustable stop for supporting the workpiece is set correctly and does not disturb the saw blade or the protective system. Without switching the machine "ON", check without moving the workpiece by moving the saw blade (completely simulated cut) that there are no disturbances or dangers when cutting at the stop.
- For a workpiece that is wider or longer than the supporting table, sufficient support such as table extensions, saw blocks, etc. must be provided.
- Always use a clamp or fixture designed to accept round material such as rods or tubes properly.
- Allow the saw blade to reach full speed before touching the workpiece.
- If the workpiece or saw blades become jammed, turn off the mitre saw immediately. Wait until all moving parts have come to a standstill and disconnect the plug from the power source, then start removing the jammed material.



- After you have finished cutting, release the switch, hold the machine head down and wait for the blade to stop before removing the cut part.
- Hold the handle firmly if you make an incomplete cut or release the switch before the machine head is fully in the down position.

Instructions for the use of the LASER:

- Do not look directly into the laser beam with unprotected eyes.
- Never point the laser beam at reflective surfaces or persons or animals. Even a low-power laser beam can cause eye damage.
- Never open the laser module. Unexpected exposure to the beam may occur.
- Do not replace the laser with another type of laser.
- Repairs to the laser may only be carried out by the laser manufacturer or an authorized representative.

12.7 Hazard Warnings

Despite their intended use, certain residual risks remain. Due to the structure and construction of the machine, hazardous situations may occur when handling the machines:

DANGER



A safety instruction designed in this way indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING



Such a safety instruction indicates a potentially hazardous situation which, if not avoided, may result in serious injury or even death..

CAUTION



A safety instruction designed in this way indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE



A safety notice designed in this way indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Irrespective of all safety regulations, their sound common sense and corresponding technical suitability/training are and remain the most important safety factor in the error-free operation of the machine. Safe working depends first and foremost on you!



13 TRANSPORT

For proper transport, follow the instructions and information on the transport packaging regarding centre of gravity, attachment points, weight, means of transport to be used and prescribed transport position, etc.

Transport the machine in its packaging to the place of installation. When lifting, carrying and depositing the load, make sure that you are in the correct posture:

- **Lifting, Depositing**
Ensure stability when lifting / setting down (legs hip width).
Lift / lower load with bent knees and straight back (like weightlifter).
Do not lift / lower the load jerkily.
- **Carrying**
Carry load with both hands as close to body as possible.
Carry load with straight back.

14 ASSEMBLY

14.1 Checking Scope of Supply

Check the machine immediately after delivery for transport damage and missing parts.

14.2 The workplace

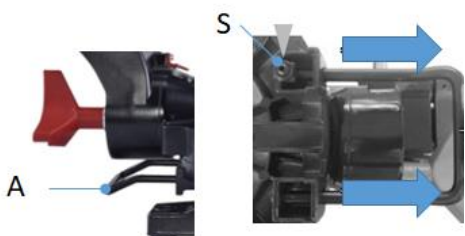

Choose a suitable place for the machine.

Pay attention to the safety requirements and the dimensions of the machine.

The selected location must ensure a suitable connection to the electrical supply as well as the possibility of connection to an extraction system. Make sure that the floor can support the load of the machine. The machine must be levelled simultaneously at all support points. It is also necessary to guarantee a distance of at least 0.8 m around the machine. The necessary distance must be provided for the feeding of long workpieces.

14.3 Assembling the machine

The machine is pre-assembled. Following assembly-steps are necessary:

	<p>Pull out the pre-assembled tilt-protection (A) completely and secure it with the Allen screw (S).</p>
	<p>Adjust the adjusting screw (B) to the level of the table top to avoid wobbling of the machine.</p>



15 OPERATION

15.1 Initial check before start

- Check that the speed of the machine is lower than the max. permissible speed of the saw blade used.
- Check saw blade rotation and saw blade dimensions to match the machine.
- Check that the saw blade guard works properly.
- Check whether the connection to a dust collection system is installed.
- Check whether the stops/fences are set correctly and the saw blade is tightened.
- Check whether the machine is fixed on the working plate or a machine stand.

15.2 Operation

15.2.1 Locking / unlocking the machine head in the transport position

By slightly pressing down the machine head (34) and simultaneously removing the locking bolt (11) from the motor holder, the saw is released from the lowest /transport position.

Note: Please hold the handle and guide the machine head slowly upwards until it reaches the uppermost position. If the handle is released, the machine head will jump up due to the spring preload. Press the machine head (34) downwards to engage and reattach the locking bolt (11).

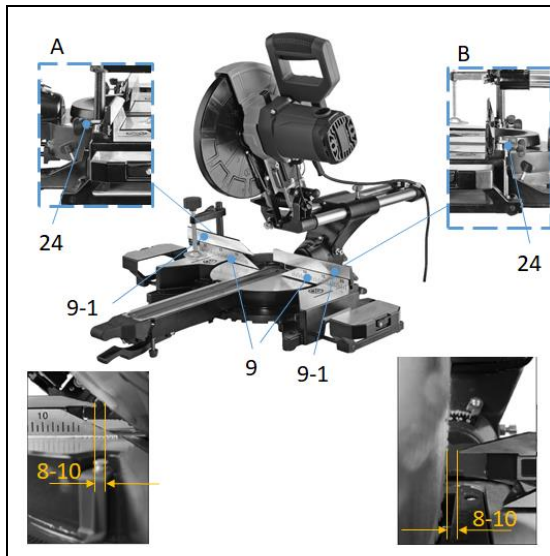
15.2.2 Setting the angular position of the worktable

	<p>Release the locking lever (6) when it is tightened, pull the locked position lever (7) upwards and adjust the rotary table (32) with the locking lever (6) to the desired angle. The angular position is indicated by a pointer (33) on the turntable. Return the locking lever (6) to the closed position to secure the rotary table (32).</p>
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15.2.3 Setting the angular position of the machine head

	<p>Loosen the fixing screw (1). Turn the machine head (34) with the handle (14) to the left until desired angle value on the scale (10) is reached. Then tighten the fixing screw (1) again.</p>
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15.2.4 Setting the stops/fences.



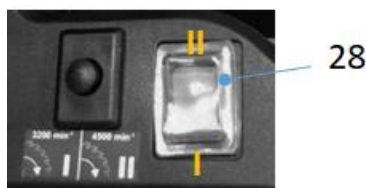
The two adjustable stops (9-1) must be adjusted after changing the machine head angle (90-45°). Loosen the fixing screws (24) and adjust the stops so that there is a distance of 8-10 mm between the saw blade and the stop. Then retighten the fixing screws (24) to fix the stops (9-1).

CAUTION



Before cutting, check that the stop bars and the saw blade cannot collide. (simulated cut with switch-off machine)

15.2.5 Setting saw blade speed

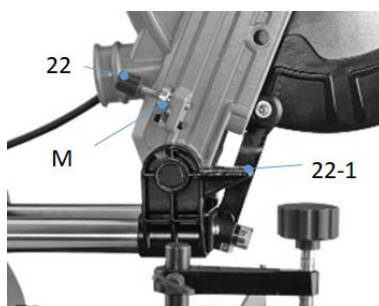


Set the selector switch (28) to the desired speed.

Pos I : 3200 min-1

Pos II: 4500 min-1

15.2.6 Setting cutting depth limiting



The cutting depth can be adjusted continuously with the screw (22). To do this, loosen the thumb nut (M) on the screw (22). Turn the screw (22) in or out to set the desired cutting depth. Then tighten the thumb nut (M) again.

NOTE



Check the setting by performing a test cut.

15.2.7 Connection to a dust collection system

For dust extraction in closed rooms, connect a suction hose to the dust extraction nozzle and fix it with a hose clamp. Connection dimensions according to technical data.

15.2.8 Switch machine ON-OFF



Switch machine ON:

Press the lock switch (15) and press the ON/OFF switch (16) on the handle.

Switch the machine OFF:

Release the ON-OFF switch (16).

15.3 Operation modes

15.3.1 Mitre cuts

Mitre are particularly suitable for cutting small workpieces (approx. 100 mm) to length.

- For cross-cut cuts, the sliding mechanism is fixed by the fixation screw (23) so that the saw unit cannot slide forwards or backwards during the cut.



- Adjust the angle setting according to the desired operation and adjust the stops/fences accordingly.
- Mark the cutting line (by laser).
- Place workpiece against stop/fence and table and fix with the clamp device.
- Move the machine head to the uppermost position.
- Switch on the machine and wait until the saw blade has reached full speed (approx. 5 sec.),
- Make the crosscut (move the machine head downwards) until it has reached the lowest position.
- Move the machine head to the uppermost position.

NOTE



Machine head is spring loaded, do not simply release the machine head, instead move the handle upwards until the uppermost position is reached (rest position).

- Release the ON-OFF switch and wait until saw blade comes to stand still.
- Remove workpiece

15.3.2 Sliding cuts

Sliding cuts are suitable for cutting longer workpieces.

- For that kind of cuts, the sliding mechanism is unlocked by releasing the fixation screw (23) so that the saw unit can slide forwards or backwards during the cut.



- Adjust the angle setting according to the desired operation and adjust the stops/fences accordingly.
- Mark the cutting line (by laser).
- Place workpiece against stop/fence and table and fix with the clamp device.
- Move the machine head to its uppermost position and pull the machine head towards you.
- Switch on the machine and wait until the saw blade has reached full speed (approx. 5 sec.),
- Make the cut (move the machine head downwards) until it has reached the lowest position and then slowly push the machine head backwards to be able to machine the wide workpiece over its entire length.
- Move the machine head to the uppermost position.

NOTE



Machine head is spring loaded, do not simply release the machine head, instead move the handle upwards until the uppermost position is reached (rest position).

- Release the ON-OFF switch and wait until saw blade comes to stand still.
- Remove workpiece



15.3.3 Slot cuts

Set the depth stop for slot cuts so that the desired cutting depth is obtained at the selected angle. Make the mitre or sliding cuts as described in the respective chapter with the difference that the workpiece is not completely cut through.

16 CLEANING, MAINTENANCE, STORAGE, DISPOSAL

WARNING



Danger due to electrical voltage! Handling at the machine with upright power supply can lead to serious injuries or death. Always disconnect the machine from the power supply before cleaning, servicing or maintenance work and secure it against unintentional reconnection!

16.1 Cleaning

NOTE



Wrong cleaning agents can attack the varnish of the machine. Do not use solvents, nitro thinners, or other cleaning agents that could damage the machine's paint. Observe the information and instructions of the cleaning agent manufacturer!

Regular cleaning is a prerequisite for the safe operation of the machine and its long service life.

- Therefore, clean the machine after each use and remove any sawdust with a brush, broom or vacuum cleaner.

16.2 Maintenance

The machine is low-maintenance and only a few parts have to be serviced. Nevertheless, malfunctions or defects which could impair the safety of the user must be rectified immediately!

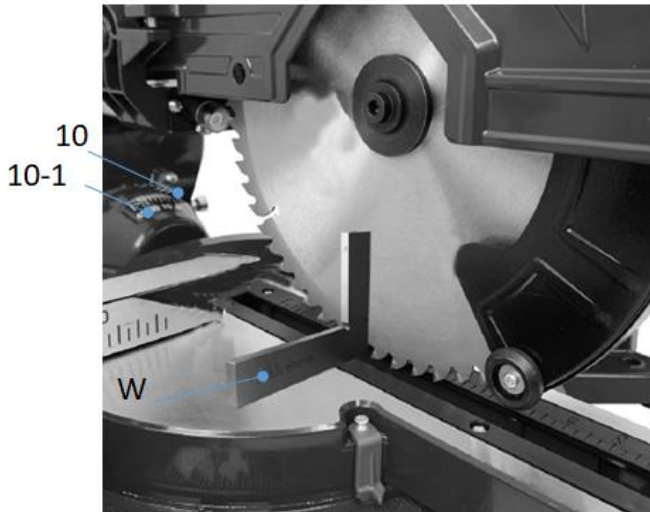
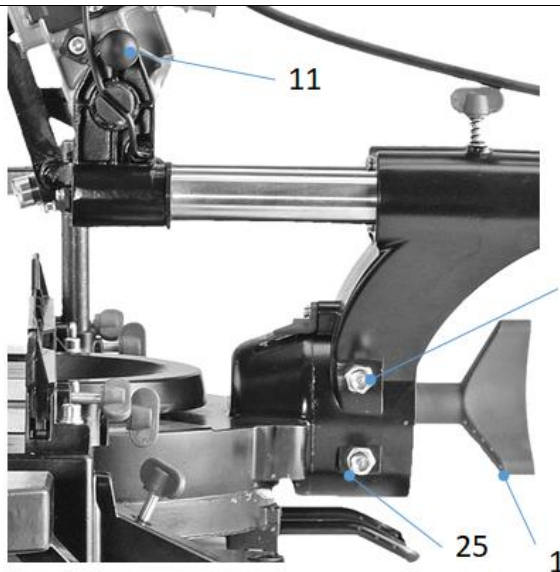
- Before each operation, check that the safety devices are in perfect condition.
- Regularly check that the warning and safety labels on the machine are in perfect and legible condition.
- Use only proper and suitable tools.
- Only use original spare parts recommended by the manufacturer.

16.2.1 Maintenance schedule

The type and degree of machine wear depend on the operating conditions. The following intervals apply when the machine is used within the specified limits:

interval	components	activity
Before usage	Saw blade	Check for damage and replace if necessary.
	Saw blade guard	Check function (see function check saw blade protection)
	Table inlet	Check for damage and replace if necessary.
	Cable	Check for damage and repair if necessary.
After usage	Maschine	Remove dust/wood splinters and dirt
	Saw blade guard	
	Chip bag	
after 50h (/ 10h)	Carbon brush	Check and replace if necessary.
When required	Saw balde	Check sharpness of saw blade and replace when necessary

16.2.2 Adjusting the angular position (by means of stop angle)



90°-cut

Lower the machine head and secure it with the locking bolt (11).

- Loosen the fixing screw (1).
- Position the 90° stop angle (W) between the saw blade and the rotary table.
- Loosen the lock nut on the adjusting screw (25) and adjust the adjusting screw (25) until the angle between saw blade and rotary table is 90°.
- Tighten the lock nut again.
- Then check the position of the angle indicator. If necessary, loosen the pointer (10) with a Phillips screwdriver and move it to the 0° position on the scale (10-1) and then fix it again.

45°-cut

Lower the machine head and secure it with the locking bolt (11).

- Fix the rotary table in the 0° position.
- Loosen the fixing screw (1) and angle the machine head with the handle 45° to the left.
- Position the 45° angle stop between the saw blade and the turntable.
- Loosen the lock nut on the adjusting screw (26) and adjust the adjusting screw (26) until the angle between saw blade and turntable is exactly 45°.
- Tighten the lock nut again.
- Then check the position of the angle indicator. If necessary, loosen the pointer (10) with a Phillips screwdriver, bring it into position 45° on the angle scale (10-1) and tighten the fixing screw again.

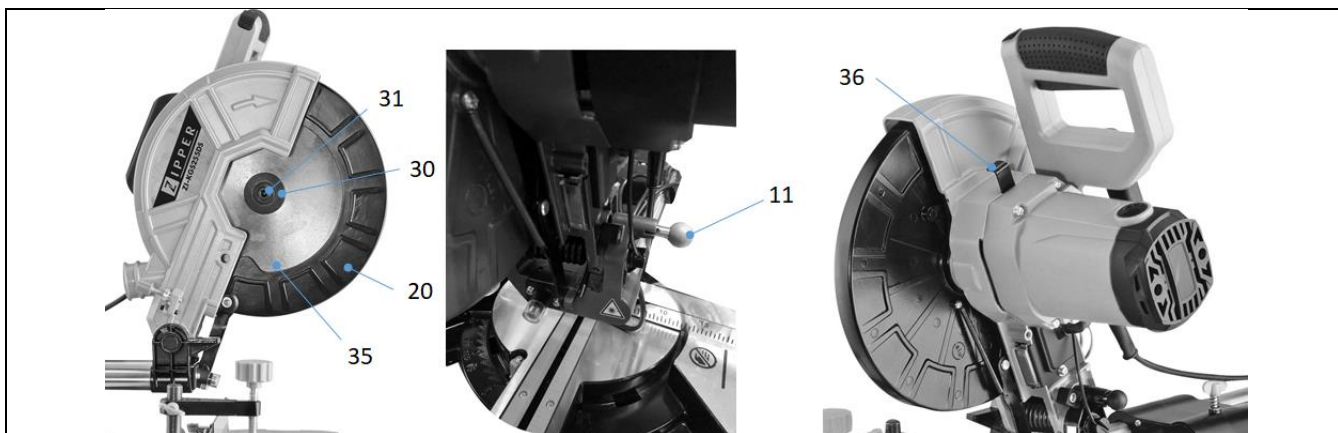


16.2.3 Saw blade change

CAUTION



Risk of injury! Wear protective gloves when changing the saw blade.



- Swivel the machine head upwards and lock it with the locking bolt (11).
- Insert the Allen key into the flange screw (31) with one hand.
- Firmly press the saw shaft lock (36) and slowly turn the screw (31) clockwise. The saw shaft lock (36) engages after one turn at the latest.
- Loosen the flange screw (31) clockwise and remove the screw and the outer flange (30).
- Fold the saw blade guard (20) upwards.
- Remove the saw blade (35) from the inner flange and pull it downwards.
- Carefully clean the flange screw (31), outer flange (30) and inner flange.
- Mount and fasten the new saw blade (35) in reverse order.

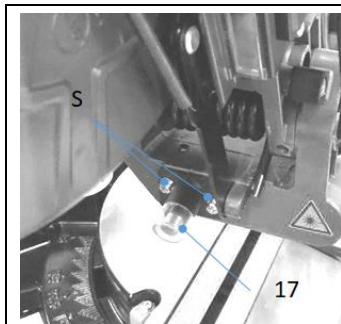
CAUTION



Pay attention to correct direction of rotation and dimension of the saw blade (6)
Limits for dimension: Max. Diameter of 255mm and max. thickness of 2.8mm,
as well as mounting diameter of 30mm.

- Before continuing with your work, make sure that all safety devices are in good operating condition. (Saw blade protection check)
- Important! Always when you change the saw blade (6), check that it rotates freely in the table insert (10) in both cases. Vertical and 45° angle settings.
- Important! The work for changing and aligning the saw blade (6) must be carried out correctly.


16.2.4 Setting the Laser




If the laser (17) does not show the correct cutting line any more, you can adjust the laser. Loosen the Phillips screws (S) and adjust the laser by moving it sideways until the laser beam hits the teeth of the saw blade. Tighten both screws (S) again.



16.2.5 Emptying/changing the chip bag

	<p>The machine is equipped with a chip bag for sawdust and chips.</p> <p>Attention! The chip collection bag may only be used for cutting wood and wood-like materials!</p> <p>Press the metal ring on the chip bag together and fasten it to the dust collector port. The chip bag can be emptied by means of a zipper on the underside.</p>
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16.2.6 Checking / changing carbon brusher

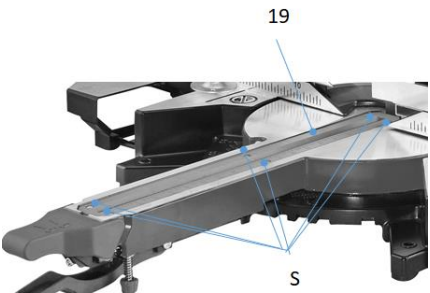
	<p>Check the carbon brushes after the first 50 hours of operation with a new machine or when new brushes are installed. After performing the first check, repeat the check every 10 operating hours.</p> <p>If the carbon is worn to a length of 6 mm, or if the spring or contact wire is burnt or damaged, it is necessary to replace both brushes. If it proves that the brushes can be used after removal, it is possible to reassemble them.</p> <p>When servicing the carbon brushes, open the two covers (13) counterclockwise. Then remove the carbon brushes. Replace the carbon brushes in reverse order.</p>
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16.2.7 Exchange table insert

CAUTION



If the table insert (19) is damaged, there is a risk that small parts may become stuck between the table insert and the saw blade and block the saw blade

	<ol style="list-style-type: none">1. Remove screws (S) from the table insert (19). If necessary, turn the rotary table and machine head to reach the screws.2. remove the table insert (19).3 Install the new table insert (19).4 Tighten the screws (S) on the table insert (19).
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16.3 Storage

NOTE



Improper storage can damage and destroy important components. Only store packed or unpacked parts under the intended ambient conditions!

When not in use, store the machine in a dry, frost-proof and lockable place to prevent the formation of rust on the one hand and to ensure that unauthorised persons and in particular children have no access to the machine.



16.4 Disposal



Observe the national waste disposal regulations. Never dispose of the machine, machine components or operating materials (like oil,...) in residual waste. If necessary, contact your local authorities for information on the disposal options available.

If you buy a new machine or an equivalent device from your specialist dealer, he is obliged in certain countries to dispose of your old machine properly.

17 TROUBLESHOOTING

WARNING



Danger due to electrical voltage! Manipulating the machine with the power supply up can lead to serious injuries or death. Always disconnect the machine from the power supply before carrying out any troubleshooting work!

Many possible sources of error can be excluded in advance if the machine is properly connected to the mains.

If you are unable to carry out necessary repairs properly and/or do not have the required training, always consult a specialist to correct/solve the problem!

Fault	Possible cause	Correction
Machine doesn't start	• No power supply	• Connect to mains
	• Carbon brushes defect	• Exchange carbon brushes
	• Motor defect	• Exchange motor
	• ON-OFF-switch defect	• Repair switch
Workpiece kick-back	• Dull saw blade	• Replace saw blade
	• Wrong assembled saw blade	• Check direction / assemble
Wrong cutting angle	• Angular position not correct	• Adjusting the angular position
Saw blade cuts the table	• Incorrect setting of cutting depth	• Adjust cutting depth