Metabo KGS 305 M

Metabo 305 mm KGS305M Mitre Saw Instruction Manual

Model: KGS 305 M

1. Introduction

This instruction manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your Metabo 305 mm KGS305M Mitre Saw. Please read this manual thoroughly before operating the tool to ensure proper usage and to prevent injury or damage.
The Metabo KGS 305 M is a high-performance sliding compound mitre saw designed for precise cutting of various materials, offering robust construction and user-friendly features.

2. Safety Instructions

Always observe the following safety precautions to reduce the risk of electric shock, fire, and serious injury.

- **Read all instructions:** Familiarize yourself with the controls and proper use of the tool.
- **Wear appropriate personal protective equipment (PPE):** Always wear safety glasses, hearing protection, and a dust mask.
- **Secure the workpiece:** Ensure the material is firmly clamped before cutting to prevent kickback.
- **Keep work area clean and well-lit:** Cluttered or dark areas invite accidents.
- **Avoid dangerous environments:** Do not use power tools in damp or wet locations, or expose them to rain.
- **Disconnect power:** Always unplug the saw before making any adjustments, changing accessories, or performing maintenance.
- **Use the correct blade:** Ensure the saw blade is sharp, clean, and suitable for the material being cut.
- **Maintain proper footing and balance:** Do not overreach.
- **Keep hands clear of the cutting area:** Never place hands near the rotating blade.

3. Components and Features



Figure 3.1: Overview of the Metabo KGS 305 M Mitre Saw, highlighting its main components including the saw blade, motor housing, dust collection bag, and adjustable base.

The Metabo KGS 305 M Mitre Saw is equipped with several features designed for efficiency and precision:

- **Powerful Motor:** Enormous cutting performance due to an extremely powerful universal motor.
- **Large Saw Blade:** Accommodates a 305 mm saw blade for extensive cutting capacity.
- **Sliding Function:** Allows for cutting wide workpieces with ease.
- **Compact and Lightweight Design:** Suitable for one-handed transport and easy maneuverability.
- **Robust Die-Cast Aluminium:** Ensures durability and stability for demanding tasks.
- **Ergonomic Handles:** Designed for comfortable and secure transport.
- **Integrated Dust Scoop:** Provides effective dust extraction to maintain a clean work area.
- **Laser for Cutting Line:** Mains-powered laser for exact display of the cutting line, no batteries required.
- **Adjustable Table Width Extensions:** Extendable and removable to support long panels and slabs.
- **LED Work Light:** Bright, mains-powered LED for illuminating the cutting line.

- **Material Clamp:** Securely fixes the workpiece from the top or front.
- **Depth Guide:** Facilitates easy creation of grooves.
- **Saw Head Inclination:** Can be inclined to the left, with an additional angle range for undercuts.
- **Intuitive Controls:** All scales and operating elements are visible and easily accessible from the working position.
- **Easy Blade Change:** Spindle lock mechanism allows for quick saw blade changes without dismantling the pendulum guard.

4. Setup

1. **Unpacking:** Carefully remove the saw and all accessories from the packaging. Inspect for any shipping damage.
2. **Mounting:** Securely mount the mitre saw to a stable workbench using appropriate bolts or clamps. Ensure the workbench can support the weight and forces generated during operation.
3. **Blade Installation (if not pre-installed):**
    - Ensure the saw is unplugged.
    - Press the spindle lock button.
    - Use the provided wrench to loosen the blade retaining bolt.
    - Install the new blade, ensuring the rotation arrow on the blade matches the arrow on the saw guard.
    - Tighten the blade retaining bolt securely.
4. **Adjusting Table Extensions:** Extend the table width extensions as needed to support longer workpieces. Ensure they are locked in place.
5. **Dust Collection:** Attach the dust collection bag or connect a suitable dust extraction system to the integrated dust scoop.
6. **Power Connection:** Connect the saw to a suitable power outlet (240 Volts).

5. Operating Instructions

1. **Workpiece Preparation:** Mark your cutting line clearly on the workpiece.
2. **Positioning the Workpiece:** Place the workpiece firmly against the fence and on the saw table. Use the material clamp to secure it.
3. **Adjusting Angles:**
    - **Mitre Angle:** Loosen the mitre lock handle. Rotate the turntable to the desired angle, aligning with the scale. Lock the handle.
    - **Bevel Angle:** Loosen the bevel lock. Tilt the saw head to the desired angle (up to 47 degrees left). Lock the bevel.
    - **Depth Guide:** Adjust the depth guide for groove cutting as required.
4. **Activating Laser and LED:** Turn on the laser guide and LED work light for precise alignment and illumination of the cutting line.
5. **Making a Cut:**
    - Ensure the blade is not touching the workpiece.
    - Press the trigger to start the motor and allow the blade to reach full speed.
    - Slowly lower the saw head through the workpiece. For sliding cuts, pull the saw head forward, lower it, and push it steadily through the material.
    - Once the cut is complete, release the trigger and allow the blade to stop completely before raising the saw head.
6. **Dust Management:** Regularly empty the dust collection bag or ensure your dust extraction system is functioning effectively.

6. Maintenance

Regular maintenance ensures the longevity and safe operation of your Metabo Mitre Saw.

- **Cleaning:** After each use, disconnect the power and clean the saw thoroughly. Remove sawdust and debris from the motor vents, blade guard, and table. Use a soft brush or compressed air.
- **Blade Inspection:** Regularly inspect the saw blade for sharpness, cracks, or missing teeth. Replace dull or damaged blades immediately.
- **Lubrication:** Apply a light coat of machine oil to moving parts and pivot points as recommended in the full service manual (if applicable).
- **Cord Inspection:** Check the power cord for any signs of damage, cuts, or fraying. Do not use the saw if the cord is damaged.
- **Fastener Check:** Periodically check all nuts, bolts, and screws for tightness. Tighten as necessary.

7. Troubleshooting

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause / Solution
Saw does not start.	Check power connection. Ensure power outlet is functional. Check circuit breaker.
Blade not cutting cleanly or burning wood.	Blade is dull or dirty. Replace or clean blade. Incorrect blade type for material. Feed rate too fast.
Excessive vibration or noise.	Blade is loose or damaged. Check blade mounting. Workpiece not secured. Motor issues (contact service).
Dust collection is ineffective.	Dust bag is full or clogged. Dust port is blocked. Ensure dust extraction system is properly connected and functioning.
Laser line is dim or not visible.	Laser lens is dirty. Clean the lens. Check if laser is switched on.

8. Specifications

Attribute	Value
Brand	Metabo
Model Number	KGS 305 M
Voltage	240 Volts
Wattage	2000 Watts
Blade Diameter	305 Millimetres
Speed	3700 RPM
Item Weight	19.6 Kilograms
Product Dimensions (LxWxH)	60 x 40 x 35 Centimeters
Included Components	Metabo KGS 305 M 240 V 305 mm Diameter Sliding Compound Mitre Saw

9. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the warranty card included with your product or visit the official Metabo website. Keep your purchase receipt as proof of purchase.
For further assistance, you may contact Metabo customer service through their official channels.

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