

TOLSEN FORCE XPRESS

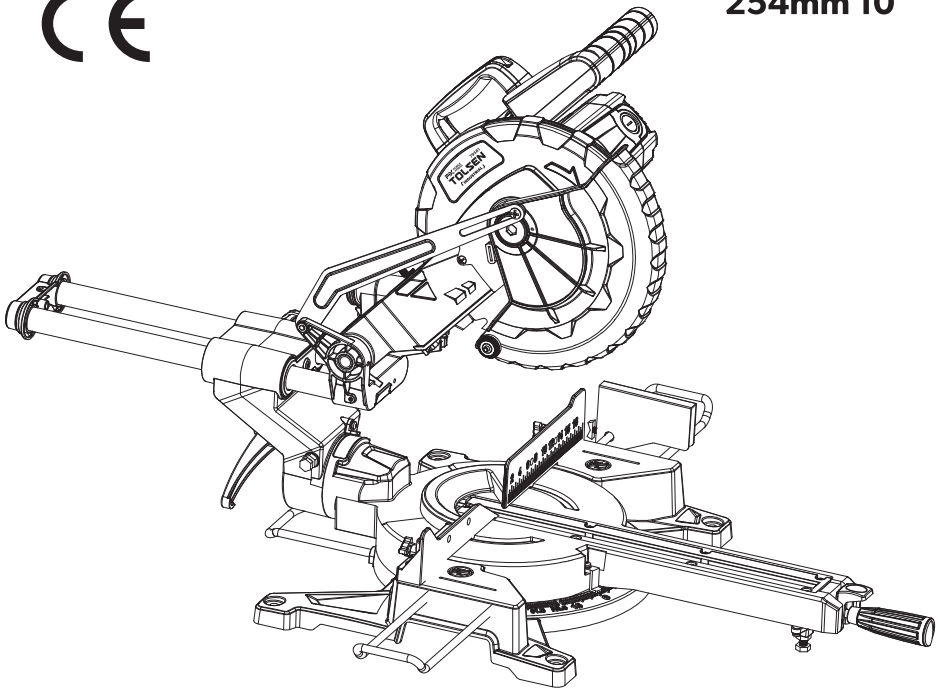
79581 SLIDING MITER SAW

INSTRUCTION MANUAL

1800W 220-240V~50Hz



254mm 10"



SAVE THIS MANUAL !

You will need this manual for safety instructions, operating procedures and warranty.
Put it and the original sales receipt in a safe dry place for future reference.

IMPORTANT SAFETY INFORMATION

General safety regulations

WARNING:

Disconnect the plug from the power source before making any assembly, adjustments or changing accessories. Such preventative safety measures reduce the risk of starting the tool accidentally. Read carefully and understand all instructions before using the tool. When using power tools, the following instructions must be followed to prevent hazards such as electric shock, fire and/or serious injury.

Work area safety

1. Keep work area clean and well lit. Cluttered benches and dark areas invite accidents.
2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

Electrical safety

1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce the risk of electric shock.
2. Void body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
5. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord for outdoor use reduces the risk of electric shock.

Personal safety

1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of distraction while operating power tools may result in serious personal injury.
2. Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. Void accidental starting. Ensure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
4. Remove any adjusting key or wrench before turning the power tool ON. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.

Power tool use and care

1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer for the purpose for which it was designed.
2. 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.
3. Disconnect the plug from the power source before making any adjustments, changing accessories or storing power tools. Such preventative safety measures reduce the risk of starting the power tool accidentally.
4. Store idle power tools out of the reach of children and 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.
5. Maintain power tools, check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools' operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from intended could result in a hazardous situation.

Service

1. Have your power tool serviced by a qualified repair person using only genuine replacement parts. This will ensure that the safety of the power tool is maintained.
2. Follow instruction for lubricating and changing accessories.
3. Keep handles dry, clean and free from oil and grease.

SAFETY INSTRUCTION FOR MITRE SAW

General

1. This machine can be used for cutting wood and aluminum profiles. Always equip it with the saw blade corresponding to the specific material.
2. Always saw a single work piece (work pieces placed one on the other or next to each other cannot be properly clamped which may result in saw blade binding or work piece slipping during sawing)
3. Inrush currents cause short-term voltage drops. Under unfavourable power supply conditions (specifically, when the system impedance exceeds $0.295 + j0.184 \text{ Ohm}$), other equipment may be affected. For further clarification, contact your local power supply authority.
4. Always disconnect plug from power source before making any adjustment or changing any accessory.
5. This tool should not be used by people under the age of 16 years.
6. This tool is not suitable for wet cutting.

Outdoor Use

1. When used outdoors, connect the tool via a fault current (fl) circuit breaker with a triggering current at 30 mA maximum, and only use an extension cord which is intended for outdoor use and equipped with splashproof coupling-socket.

Before Use

1. Always check that the supply voltage is the same as the voltage indicated on the nameplate of the tool.
2. Always mount the tool on a flat and stable working surface (e.g. workbench).
3. Wear protective glasses, hearing protection, and protective gloves.
4. Dust from material such as paint containing lead, some wood species, minerals and metal may be harmful (contact with or inhalation of the dust may cause allergic reactions and/or respiratory diseases to the operator or bystanders); wear a dust mask and work with a dust extraction device when connectable.
5. Certain kinds of dust are classified as carcinogenic (such as oak and beech dust) especially in conjunction with additives for wood conditioning; wear a dust mask and work with a dust extraction device when connectable.
6. Follow the dust-related national requirements for the materials you want to work with.
7. Do not work materials containing asbestos (asbestos is considered carcinogenic).
8. Never use the tool without the original protection guard system.
9. Check the protective guard for proper closing before each use.
10. Do not operate the saw if the protective guard does not move freely and close instantly.
11. Never clamp or tie the protective guard into the open position.
12. Always firmly clamp the work piece (do not work with pieces that are too small to clamp).
13. Always support the free ends of a long work piece.
14. Never allow another person to hold or support the work piece while working; use the saw table extension.
15. Never use the tool without the table insert; replace a defective or worn table insert.
16. Remove all obstacles on top of as well as underneath the cutting path before you start cutting.
17. Avoid damage that can be caused by screws, nails and other elements in your work piece; remove them before you start working.

Accessories

1. Never use grinding/cutting discs with this tool.
2. Tolsen can assure flawless functioning of the tool only when the correct accessories are used which can be obtained from your Tolsen dealer.
3. For mounting/using non-Tolsen accessories observe the instructions of the manufacturer concerned.
4. Use only accessories with an allowable speed matching at least the highest no-load speed of the tool.
5. Never use saw blades made of high speed steel (HSS).
6. Do not use a saw blade which is cracked, deformed or dull.
7. Only use saw blades with a hole diameter which fits the tool spindle without play; never use reducers or adaptors to fit large-hole saw blades.
8. Protect accessories from impact, shock and grease.

During Use

1. Do not force the tool; apply light and continuous pressure.
2. Keep fingers, hands and arms away from the rotating saw blade.
3. Push spindle-lock button only when tool is at a standstill.
4. If the saw blade becomes blocked, switch off the tool immediately and disconnect the plug; only then remove the wedged work piece.
5. In case of jamming or electrical or mechanical malfunction, immediately switch off the tool and disconnect the plug.
6. If the cord is damaged or cut through while working, do not touch the cord, but immediately disconnect the plug.
7. Never use the tool when cord is damaged; have it replaced by a qualified person.





After Use

1. After switching off the tool, never stop the rotation of the accessory by a lateral force applied against it.
2. Only remove cut-offs or other parts of the workpiece from the cutting area when all moving parts have come to a complete standstill.
3. The saw blade becomes very hot during use; do not touch it before it has cooled down.

SPECIFICATIONS

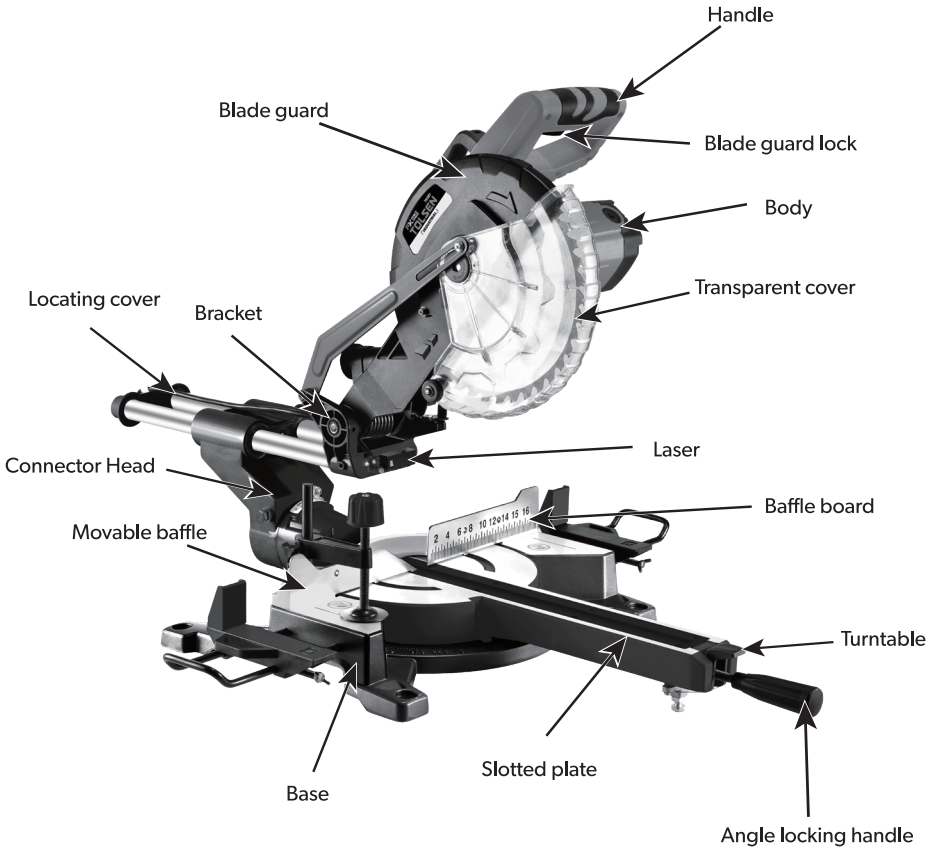
Blade size	254mm/10"
Blade Bore	25.4mm
Input power	1800W
Rated Voltage	220-240V
Frequency	50Hz
No load speed	n_0 : 5200/min
Working table left and right	0-45°
Bevel cut	45-90°
Max. cutting capacity	90°×0° - 90×320mm 45°×0° - 90×210mm 90°×45° - 42×320mm 45°×45° - 42×210mm

SYMBOLS

	Read the instructions for use before starting the machine.
	Wear safety goggles.
	Wear ear protection.
	Always use breathing apparatus when machining materials which generate dust.

	WARNING
	Do not dispose of old appliances in the household garbage.
	Keep your hands and feet away from all opening.
	Double insulation.

Functions



OPERATING INSTRUCTION

1. Before starting the equipment.
2. Before you connect the equipment to the mains supply make sure that the data on the rating plate are identical to the mains data.
3. Always pull the power plug before making adjustments to the equipment.

General Information

1. The equipment must be set up where it can stand securely, i.e. it should be bolted to a workbench, a universal base frame or similar.
2. 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.
3. When working with wood that has been processed before, watch out for foreign bodies such as nails or screws, etc.
4. Before you actuate the On/Off switch, make sure that the saw blade is correctly fitted and that the equipment's moving parts run smoothly.

Setting Up The Saw

1. The workpiece supports must be inserted and tightened using a Phillips screwdriver. Screwdriver not included in delivery

Adjusting The Saw

1. To adjust the turntable , loosen the knurled screw by approx. 2 turns, which frees the turntable.
2. The turntable has locking points at angles of 0°, 5°, 10°, 15°, 22,5°, 30°, 35°, 40°, 45°. Once the turntable is engaged, the setting must be additionally secured by tightening the knurled screw .
3. If different angle settings are required, the turntable may be secured in position using only the knurled screw .
4. Lightly press the machine head down while at the same time pulling the retaining pin out from the motor mounting; this causes the saw to move down to the lower working position.
5. Swing up the machine head .
6. By loosening the lock screw , the machine head can be angled to the left up to 45°.
7. Check that the voltage marked on the rating plate is the same as your mains voltage and connect up the machine.

Precision Adjustment Of The Stop Rail

1. Lower the machine head and fasten in place with the safety pin .
2. Fasten the turntable in 0° position.
3. Place the 90° stop angle between the blade and the stop rail .
4. Slacken the adjustment screws , set the stop rail to 90° in relation to the saw blade and retighten the adjustment screws .

Precision Adjustment Of The Stop For 90° cross-cuts

1. Lower the machine head and fix with the lock pin .
2. Slacken the tightening screw .
3. Place the stop angle between the saw blade and the rotary table .
4. Slacken the counter nut and adjust the setting screw until the angle between the saw blade and the rotary table equals 90° .
5. Re-tighten the counter nut to fix the machine in this setting.
6. Finally, check the position of the angle indicator . If necessary, release the pointer with a crosstip screwdriver, move to the 0° position of the angle scale and retighten the holding screw.
7. No stop angle included.

Precision Adjustment Of The Stop For 45° Mitre Cuts

1. Lower the machine head and fix with the lock pin .
2. Fix the rotary table in 0° position.
3. Undo the tightening screw and use the handle to tilt the machine head to the left until it coincides at 45° .
Place the 45° stop angle between the saw blade and the rotary table .
4. Slacken the counter nut and adjust the setting screw until the angle between the saw and the rotary table equals exactly 45° .
5. No stop angle included.

OPERATION

Crosscut 90° And Turntable 0°

1. Press the main switch to turn on the saw.
2. Important. Place the material for sawing firmly on the machine surface, to prevent it from moving during the sawing process.
3. After switching on the saw, wait for the blade to reach its maximum speed.
4. Press the release lever sideways and, using the handle, apply steady and light downward pressure to move the machine head through the workpiece.
5. When the cut is completed, return the machine to its top parking position and let go of the On/Off switch.
6. Caution! A return spring causes the machine head to rise automatically at the end of the cut. Do not let go of the handle as soon as the cut is completed but steady the machine head and allow it to rise slowly.

90° Cross-cuts And 0°-45° Rotary Table

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

1. Lift the machine head to its top position.
2. Release the turntable by slackening the locking grip.
3. Using the handle, set the turntable to the desired angle, i.e. the marking on the turntable must coincide with the desired angular setting on the stationary base plate.
4. Re-tighten the locking handle in order to fix the rotary table in position.

Mitre Cuts 0°-45° And Rotary Table 0°

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

1. Lift the machine head to its top position.
2. Fix the rotary table in 0° position.
3. Undo the tightening screw and use the handle to tilt the machine head to the left until the pointer coincides with the required angle value.
4. Re-tighten the locking nut and make the cut as described in Section .

Mitre Cuts 0°-45° And Rotary Table 0°-45°

The crosscut saw can be used to make miter cuts to the left of 0° - 45° in relation to the work face and, at the same time, 0° - 45° in relation to the stop rail (double miter cut).

1. Lift the machine head to its top position.
2. Release the turntable by slackening the locking grip.
3. Adjust the rotary table by its handle to the required angle (see also Section).
4. Retighten the tightening screw in order to secure the turntable in place.
5. Undo the tightening screw and use the handle to tilt the machine head to the left until it coincides with the required angle value (in this connection see also section).
6. Screw the tightening screw back down again.

Sawdust Bag

1. The saw is equipped with a debris bag for sawdust and chips.
2. The debris bag can be emptied by means of a zipper at the bottom.

Replacing The Saw Blade

1. Before changing the saw blade: Remove the power plug!
2. Wear work gloves to prevent injury when changing the saw blade.
3. Swing the machine head upwards .
4. Undo the screw on the cover plate of the saw blade.
5. Pull back the adjustable blade guard and at the same time turn the cover plate to achieve access to the flange bolt.
6. Press the saw shaft lock with one hand while positioning the Allen key on the flange bolt with the other hand. The saw shaft lock engages after no more than one rotation.
7. Now, using a little more force, slacken the flange screw in the clockwise direction.
8. Turn the flange screw right out and remove the external flange .
9. Take the blade off the inner flange and pull out downwards.
10. Carefully clean the flange screw , outer flange and inner flange.
11. Fit and fasten the new saw blade in reverse order.
12. Important. The cutting angle of the teeth, in other words the direction of rotation of the of the arrow on the housing.
13. Check to make sure that all safety devices are properly mounted and in good working condition before you begin working with the saw again.
14. Important. Every time that you change the saw blade, check to see that it spins freely in the table insert in both perpendicular and 45° angle settings.
15. Important. The work to change and align the saw blade must be carried out correctly

CLEANING AND MAINTANCE

Always pull out the mains power plug before starting any cleaning work.

Cleaning

Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible. Wipe the equipment with a clean cloth or blow it with compressed air at low pressure. We recommend that you clean the device immediately each time you have finished using it. Clean the equipment regularly with a moist cloth and some soft soap. Do not use cleaning agents or solvents; these could attack the plastic parts of the equipment. Ensure that no water can seep into the device. The ingress of water into an electric tool increases the risk of an electric shock.

Carbon brushes

In case of excessive sparking, have the carbon brushes checked only by a qualified electrician.

Important! The carbon brushes should not be replaced by anyone but a qualified electrician.

Maintenance: There are no parts inside the equipment which require additional maintenance.

Lubricate all moving parts at regular intervals.

Storage

Store the equipment and accessories out of children's reach in a dark and dry place at above freezing temperature. The ideal storage temperature is between 5 and 30 °C. Store the electric tool in its original packaging.

TROUBLESHOOTING

Fault Symptom	Possible causes	Troubleshooting
Out of service.	Disconnection between plug and power socket.	Put plug in power socket.
	shortcircuit in power supply.	Repair and reconnection.
	At switch-off.	Switch on.
	Loose switching contact.	Replace switchboard or reconnect lead wire by repairer.
	Burnout of stator or rotor coil.	Replace stator or rotor by repairer.
	Stator wiring disconnection.	Reconnection by repairer.
Sluggish start-up, falling short of running speed.	Disconnection between carbon brush and commutator.	Replace carbon brush.
	Unsmooth running in mechanical part.	Check mechanical part by repairer.
	Low supply voltage.	Regulate supply voltage.
Excessive sparkling.	Burnout of switch contact.	Replace switchboard by repairer.
	Underpressure in carbon brush spring.	Replace carbon brush by repairer.
during running.	Excessive wearout of carbon brush.	Replace carbon brush by repairer.
	Ring fire caused by shortcircuit in rotor winding shortcircuit.	Check or replace rotor by repairer.
	Ring fire caused by shortcircuit in commutator segment.	Check or replace rotor by repairer.
	Overvoltage in supply power.	Regulate supply voltage.
	Disconnection between carbon brush and commutator.	Replace carbon brush.
Excessive machinery noise.	Electric machine at fault.	Check electric machine by repairer.
	Excessive sawing noise due to wearout of saw blade.	Replace saw blade.
	Gear tooth noise due to severe wear of gear wheel.	Replace gear wheel.
Failed to reach rated power.	Electrocircuit overload due to lighting device, public utility or other electric appliances	No use of public utility or other electric appliances on machine-connected electrocircuit
Machine superheating.	Electromotor overload.	Overload protection
	Insufficient motor cooling.	Dedust air outlet.
Excessive mechanical vibration	Rotor in dynamic imbalance.	Replace rotor by repairer.
	Improper installation of saw blade.	Installation with reference to instruction manual.
	Saw blade damaged or distorted.	Replace saw blade.
Not trim alignment	Failure in angular degree indicating needle.	Regulate angular degree indicating needle by repairer

TROUBLESHOOTING

Fault Symptom	Possible causes	Troubleshooting
Failure in movable guard.	Connecting rod distorted.	Replace movable guard accessory.
	Sawdust blockup.	Clear up sawdust.
	Torsional spring failure.	Replace torsional spring by repairer.
Nonstandard sawing.	Improper angular adjustment.	Angular readjustment.
Sawing failure.	Damaged or blunt saw blade.	Replace saw blade with reference to instruction manual.
	Loose connection between saw blade and clamping screw.	Screw up clamping screw.
	Rotor tooth or gear wheel damaged.	replace gear wheel or rotor.
Laser flashlight failure.	Disconnection between plug and power socket.	Put plug in power socket.
	shortcircuit in power supply.	Repair and reconnection.
	At switch-off.	Switch on.
	Loose switching contact.	Replace switchboard by repairer.
	Transformer damage.	Replace transformer by repairer.
Spare parts list and drawing		

CE DECLARATION OF CONFORMITY

WE
SUZHOU TOLSEN TOOLS CO.,LTD.
198 HUASHAN ROAD, ZHANGJIAGANG,
JIANGSU, CHINA

Declare that the product
79581 SLIDING MITER SAW

Complies with the essential health and safety requirements of the
following Directices:

Machinery directive 2006/42/EC
the ECM directive(2004/30/EU)

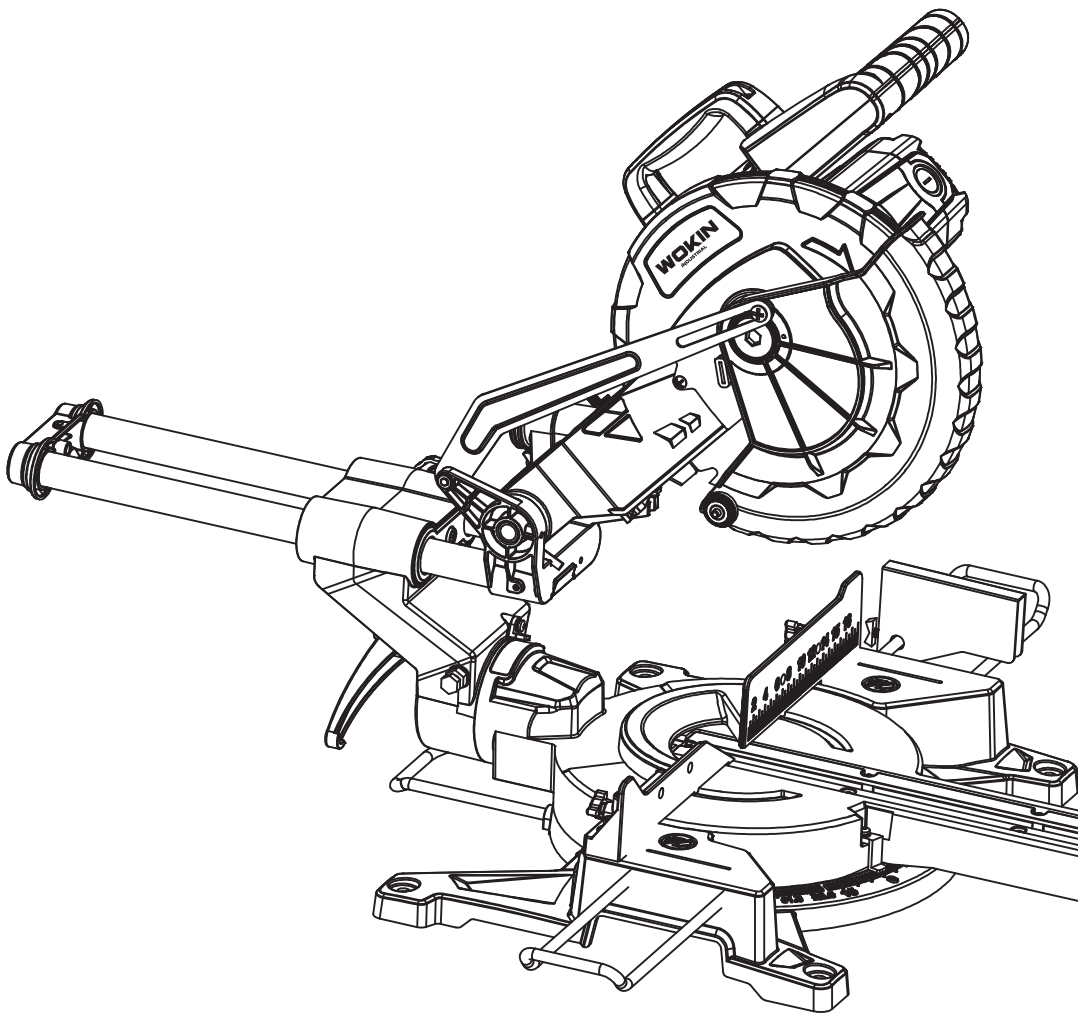
Standards and technical specifications referred to:

EN 62841-1:2015+AC:2015
PAK-Anforderung für GS(PAH requirement for GS) AfPS GS 2019:01 PAK
EN IEC 62841-3-9:2020+A11:2020
EN IEC 55014-1:2021
EN IEC 55014-2:2021
EN IEC61000-3-2:2019+A1:2021
EN IEC 61000-3-11:2019
the EMC directive(2014/30/EU)

Authorised Signatory and technical file holder

Signed for and on behalf of:
SUZHOU TOLSEN TOOLS CO.,LTD.
198 HUASHAN ROAD, ZHANGJIAGANG,
JIANGSU, CHINA
ZHANG XING YU
Group Quality Director
on:26/05/2020





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