

metabo®

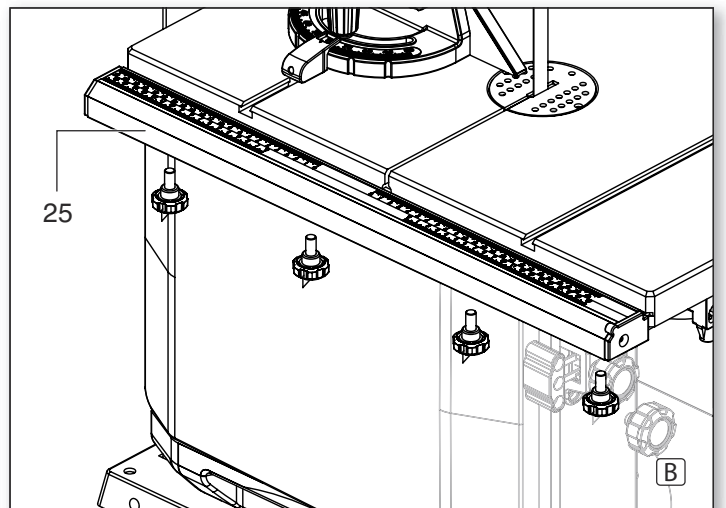
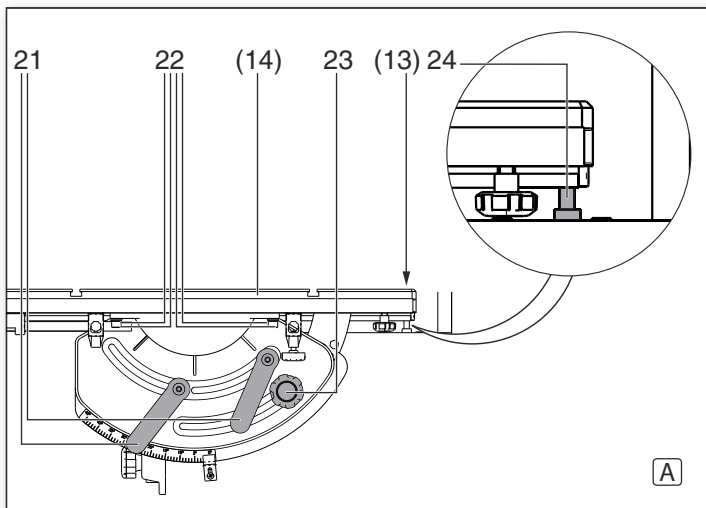
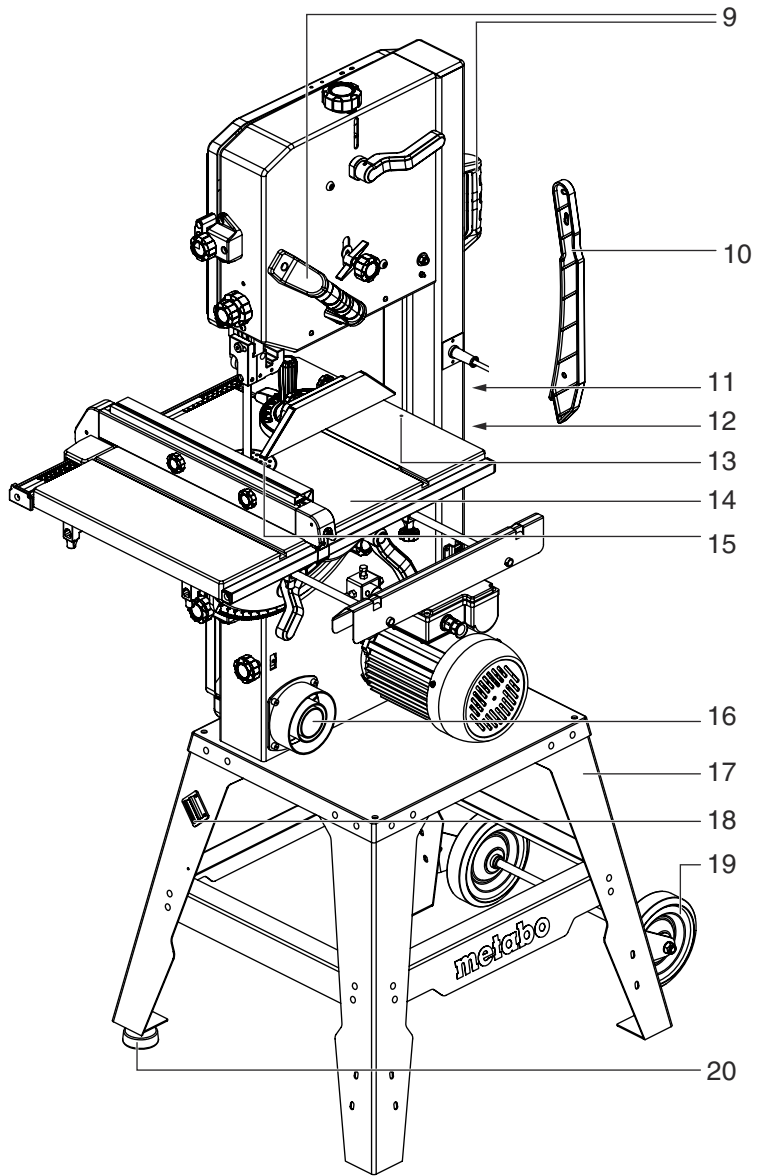
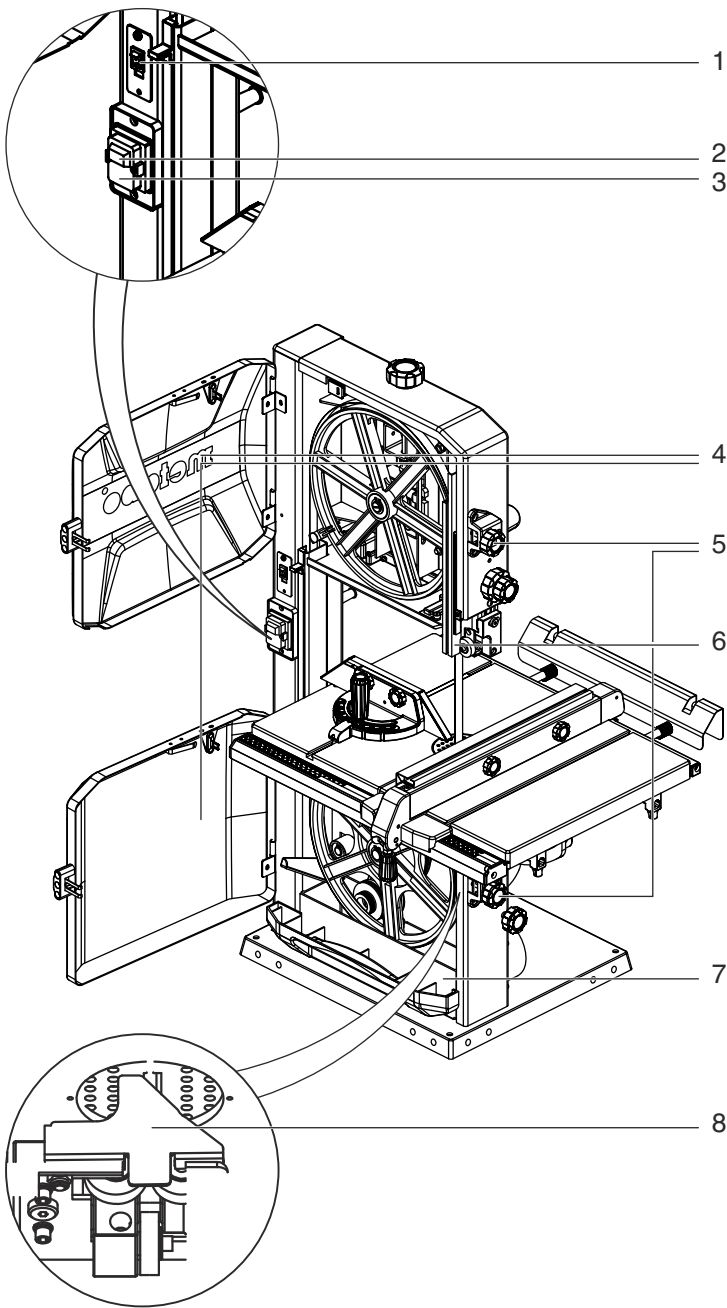
PROFESSIONAL POWER TOOL SOLUTIONS

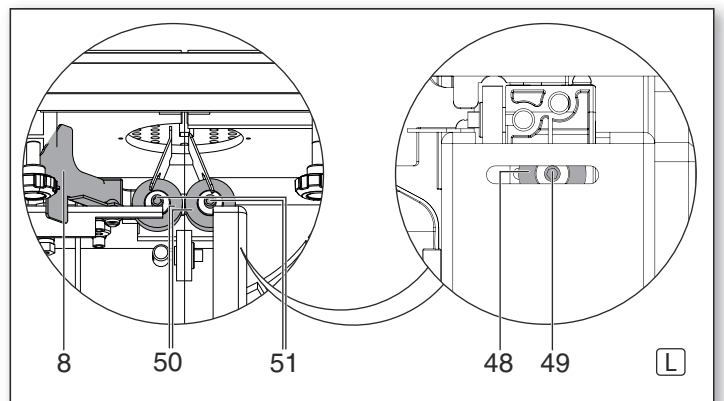
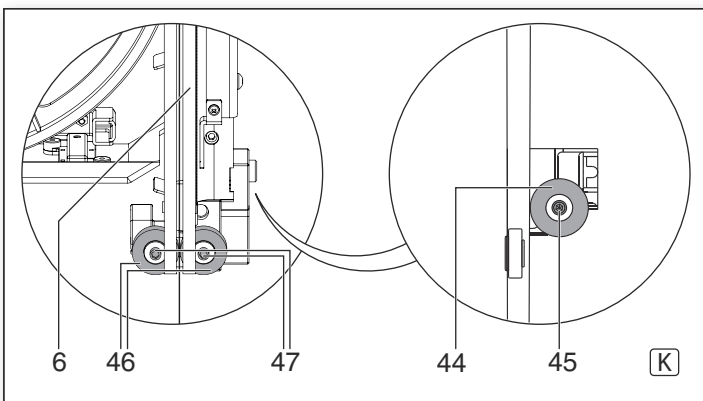
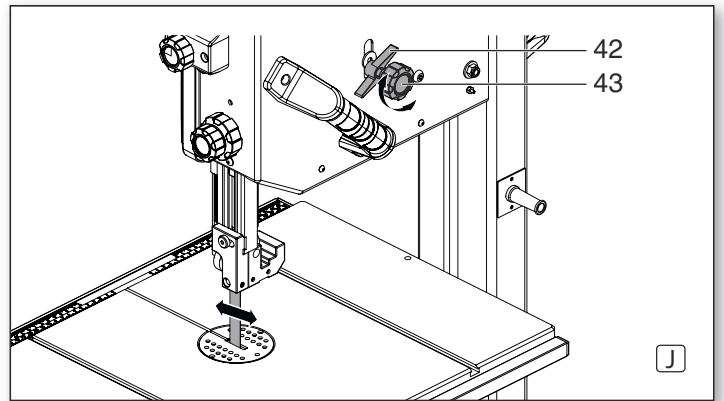
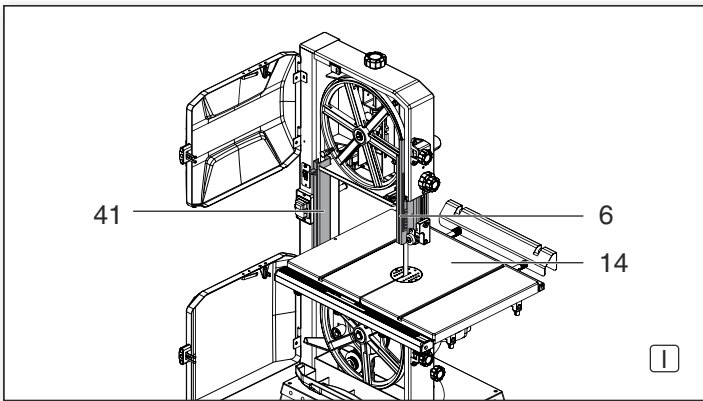
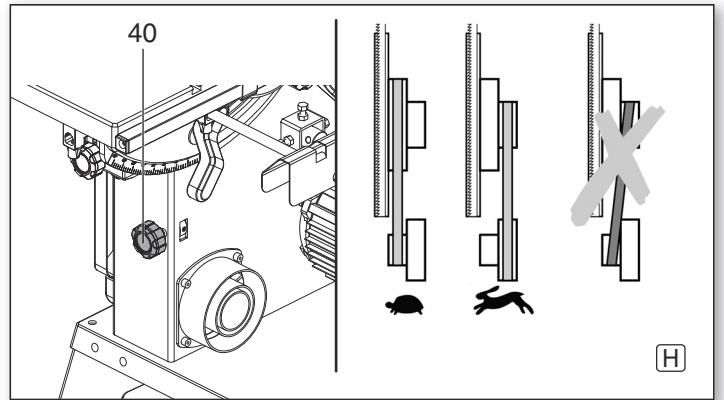
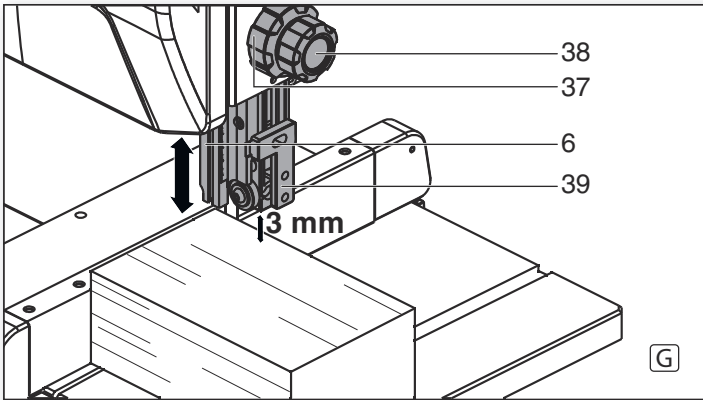
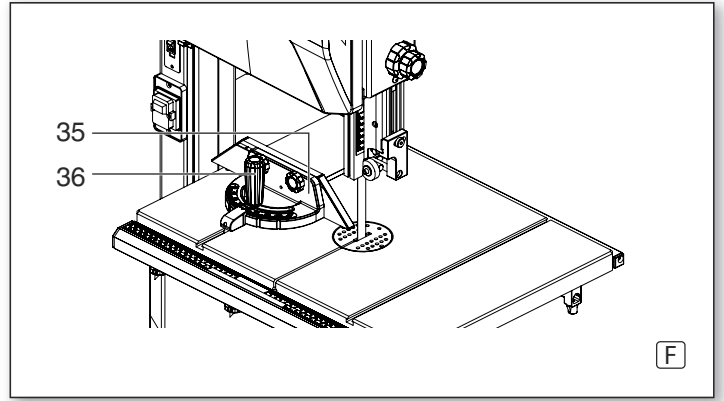
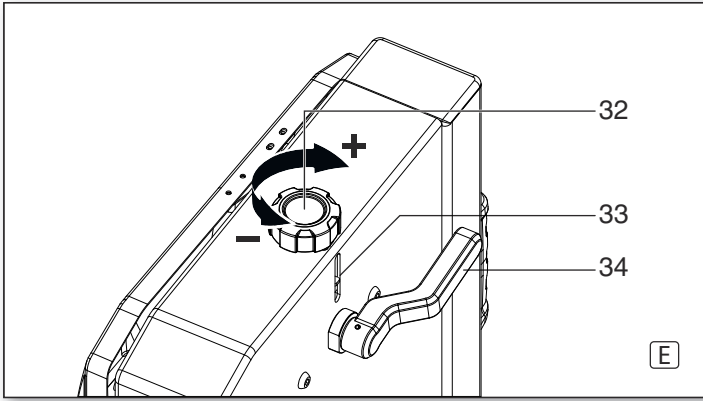
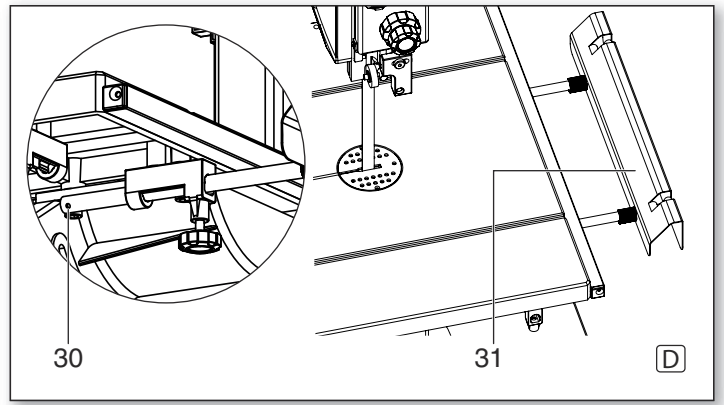
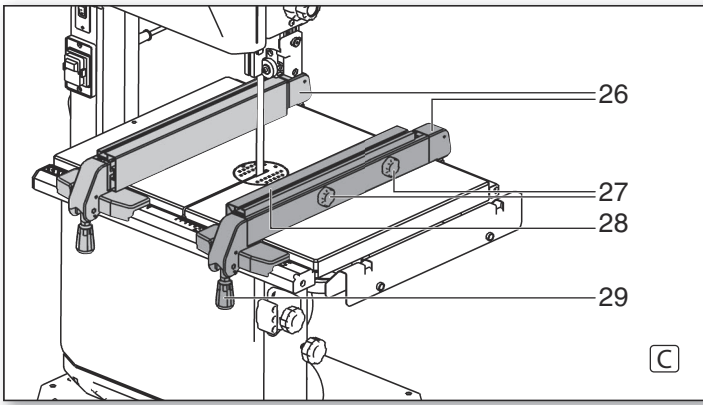
BAS 318 Precision WNB BAS 318 Precision DNB

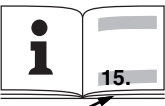


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		BAS 318 Precision WNB	BAS 318 Precision DNB
*1) Serial Number		19009..	19010..
U	V	220-240 (1~ 50/60 Hz)	380-415 (3~ 50 Hz)
I	A	4	1,9
F	A	T 10 A	T 10 A
P₁	W	900 (S1, 100%)	
P₂	W	660 (S1, 100%)	
n₀	/min, rpm	1490	
v₀	m/min	880 410	
S_L	mm	2240	
S_B	mm	6 - 20	
S_D	mm	0,5	
H	mm	170	
B	mm	307	
W	°	0 - 45	
A₁	mm	665 x 980 x 1060	
A₂	mm	400 x 560	
A_h	mm	1000	
m	kg	79	
D₁	mm	44 / 58 / 100	
a_H/K_H	m/s²	< 2,5 / 3	
L_{pA}/K_{pA}	dB(A)	77 / 3	
L_{WA}/K_{WA}	dB(A)	98 / 3	



*2) 2011/65/EU 2006/42/EC 2014/30/EU

*3) EN 61029-1:2009+A11:2010, EN 61029-2-5:2011+A11:2015, EN IEC 63000:2018

*4) 4810012-22001

*5) DEKRA Testing and Certification GmbH, Handwerkstraße 15, D-70565, Stuttgart, Germany; Notified Body No. 0158

ppa. 

2022-02-14, Bernd Fleischmann

Direktor Produktentstehung & Qualität (Vice President Product Engineering & Quality)

*6) Metabowerke GmbH - Metabo-Allee 1 - 72622 Nuertingen, Germany

Original operating instructions

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1. Declaration of Conformity

We, being solely responsible, hereby declare that these band saws, identified by type and serial number *1), meet all relevant requirements of directives *2) and standards *3). Test report *4), Issuing testing authority *5), Technical documents for *6) - see page 4.

For UK only:

UK We as manufacturer and authorized person **CA** to compile the technical file, see *6) on page 4, hereby declare under sole responsibility that these band saws, identified by type and serial number *1) on page 4, fulfil all relevant provisions of following UK Regulations S.I. 2016/1091, S.I. 2008/1597, S.I. 2012/3032, and Designated Standards *3) on page 4.
Approved Body No.: 0359; Intertek Testing & Certification Ltd. Intertek House, Cleeve Road, Leatherhead, Surrey KT22 7SA, United Kingdom (GB)

2. Please Read First!

These operating instructions have been written to make it easier for you, the user, to learn how to operate this machine and to do so safely. These instructions should be used as follows:

- Read these instructions before use. Pay special attention to the safety information.
- These operating instructions are intended for people with basic technical knowledge regarding the operation of a machine like this or similar electrical power tools. Inexperienced persons are strongly advised to seek competent advice and guidance from an experienced person before operating this machine.
- Keep all documents supplied with this machine for future reference. Retain your proof of purchase in case of a future warranty claim.
- This machine must not be sold or lent to someone else without being accompanied by all machine documents supplied with it.
- The manufacturer assumes no liability for any damage caused by neglect of these operating instructions.

Information in these instructions is marked as under:



Danger!
Risk of personal injury or environmental damage.



Risk of electric shock!
Risk of personal injury by electric shock.



Entanglement hazard!
Risk of personal injury by body parts or clothing being drawn into the rotating saw blade.



Caution!
Risk of material damage.



Note:
Additional information.

3. Specified Conditions of Use

The band saw blade is suitable for cutting wood, plastics, non-ferrous metals (not hard metal or hardened metal).

Do not cut round stock transverse to its longitudinal axis without suitable jigs or fixtures. The rotating saw blade could turn the work piece.

When sawing thin stock laid on edge a suitable guide must be used for firm support.

Any other use is not as specified. The manufacturer assumes no liability for any damage caused by unspecified use.

Modification of the machine or use of parts not approved by the manufacturer can cause unforeseeable damage!

4. General Safety Information



Caution!

When using power tools, the following basic safety measures must be taken to protect against electric shock, other injury or fire.

- When using this tool, observe the following safety instructions to exclude the risk of personal injury or material damage.
- Please also observe the special safety instructions in the respective chapters.
- Where applicable, follow the legal directives or regulations for the prevention of accidents pertaining to the use of band saws.



General hazards!

- Keep your work area tidy – a messy work area invites accidents.
- Be alert. Know what you are doing. Set out to work with reason. Do not operate the machine while under the influence of drugs, alcohol or medication.
- Consider environmental conditions: Keep work area well lighted.
- Prevent adverse body positions. Ensure firm footing and keep your balance at all times.
- When working long stock use suitable supports.
- Do not operate the machine near inflammable liquids or gases.
- The machine shall only be started and operated by persons familiar with band saws and who are at any time aware of the dangers associated with the operation of such machine.
- Persons under 18 years of age shall use this machine only in the course of their vocational training, under the supervision of an instructor.
- Keep bystanders, particularly children, out of the danger zone. Do not permit other persons to touch the machine or power cable while it is running.
- Do not overload the machine – use it only within the performance range it was designed for (see "Technical Specifications").
- Use the correct power tool for your application. The correct power tool will do the job better and safer. Danger!



Risk of electric shock!

- Do not expose the machine to rain. Do not operate the machine in a damp or wet environment. Prevent body contact with earthed objects such as radiators, pipes, cooking stoves, refrigerators when operating this machine.
- Do not use the power cable for any purpose it is not intended for.
- Pull the plug out of the socket before making any adjustments, converting or servicing the tool or if you do not use it.



Risk of injury by moving parts!

- Do not operate the machine without installed guards.
- Always keep sufficient distance to the band saw blade. Use suitable feeding aids, if necessary. Keep sufficient distance to driven components when operating this machine.
- Wait for the band saw blade to come to a complete stop before removing cutoffs, scrap, etc., from the work area.
- Cut only stock of dimensions that can be safely held during cutting.
- Do not attempt to stop the band saw blade by pushing the work piece against its side.
- Ensure the machine is disconnected from power supply before servicing.
- Ensure that when switching on (e.g. after servicing) no tools or loose parts are left on or in the machine.
- Unplug if the machine is not used.
- Do not operate tool while under the influence of drugs, alcohol or medication. There is the risk of electrical shock. Ask a qualified electrician immediately to replace a damaged mains cable.
- Regularly check extension cables and replace if damaged.
- When working out of doors, only use extension cables that are also approved for outdoors.



Cutting hazard, even with the cutting tool at standstill!

- Wear gloves when changing cutting tools.
- Store band saw blades in such manner that nobody can get hurt.



Risk of kickback (work piece is caught by the band saw blade and thrown against the operator)!

- Do not jam any work pieces.
- Cut thin or thin-walled work pieces only with fine-toothed band saw blades. Always use sharp band saw blades.
- If in doubt, check work piece for inclusion of foreign matter (e.g. nails or screws).
- Cut only stock of dimensions that can be safely held during cutting.
- Never cut several work pieces at the same time – and also no bundles containing several individual pieces. Risk of personal injury if individual pieces are caught by the band saw blade uncontrolled.
- When cutting round stock, use a suitable jig to prevent the work piece from turning.



Entanglement hazard!

- Ensure that during operation no parts of the body or clothing can be caught and drawn in by rotating components (**no ties no gloves, no clothes with wide sleeves; contain long hair with a hairnet**).
- Never cut workpieces to which ropes, cords, strings, cables or wires are attached or which contain such materials.



Hazard generated by insufficient personal protection gear!

- Wear hearing protection.
- Wear safety glasses.
- Wear dust mask.
- Wear suitable work clothes.
- Wear non-slip footwear.
- Wear gloves when handling the band saw blades and rough work pieces.



Risk of injury by inhaled wood dust!

- Some types of wood dust (e.g. beech, oak, ash) may cause cancer when inhaled. Work only with

a suitable dust collector attached to the saw. The dust collector must comply with the data stated in the technical specifications.

- See to it that only as little as possible wood dust will get into the environment:
 - Remove wood dust deposit in the work area (do not blow away!);
 - fix any leakages on the dust collector;
 - ensure good ventilation.

Hazard generated by modification of the machine or use of parts not tested and approved by the equipment manufacturer!

- Assemble the machine in strict accordance with these instructions.
- Use only parts approved by the manufacturer. This applies especially to:
 - Band saw blades (see "Technical Specifications" for stock nos.);
 - safety devices (see "Technical Specifications" for stock nos.).
- Do not change any parts.

Caution!

The use of other tools and accessories can result in a risk of injury.

Hazard generated by machine defects!

- Keep the machine and accessories in good repair. Observe the maintenance instructions.
- Before every use check the machine for possible damage: before operating the machine all safety devices, protective guards or slightly damaged parts need to be checked for proper function as specified. Check to see that all moving parts work properly and do not jam. All parts must be correctly installed and meet all conditions necessary for the proper operation of the machine.
- Damaged protection devices or parts must be repaired or replaced by a qualified specialist. Have damaged switches replaced by a service centre. Do not operate the machine if the switch can not be turned ON or OFF.
- Keep handles free of oil and grease.
- Keep cutting tools clean and sharpened in able to work better and safer.
- Do not use damaged or deformed band saw blades.

Risk of injury by noise!

- Wear hearing protection.

Danger from blocking workpieces or workpiece parts!

If blockage occurs:

1. switch machine off,
2. unplug mains cable,
3. wear gloves,
4. Clear the blockage using a suitable tool.

4.1 Symbols on the Machine

Danger!

Disregard of the following warnings may lead to serious personal injury or material damage.



Read instructions.



Wear protective goggles and ear protectors.



Disconnect the mains plug before starting any setting, maintenance or repair work.



Do not direct the light beam into the eyes of people or animals.



Wear ear protectors.



Belt width



Height adjustment



Operation of the quick release lever



Set belt tension.



Set angle of sawing table.



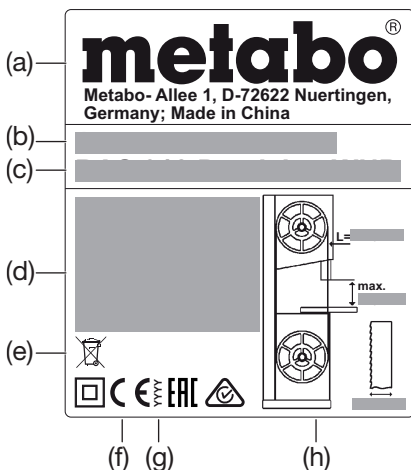
Set belt track.



Set cutting speed.



Information on the nameplate:



- (a) Manufacturer
- (b) Serial number
- (c) Device designation
- (d) Motor data (see also "Technical data")
- (e) Disposal symbol – Device can be disposed of via the manufacturer
- (f) CE mark – This device fulfils the EU Directives according to the Declaration of Conformity
- (g) Year of manufacture
- (h) Dimensions of permitted saw belts

4.2 Safety Devices

Upper blade guard

The upper blade guard (6) protects against inadvertent contact with the saw belt and against flying chips.

So that the upper saw belt cover provides sufficient protection against contact with the saw belt, the upper blade guide must be at least 3 mm from the work piece.

Lower blade guard

The lower saw belt cover (8) protects against inadvertent contact with the saw belt beneath the sawing table.

The lower blade guard must be installed during operation.

Housing doors

The housing doors (4) protect against contact with the powered parts inside the saw.

The housing doors are equipped with interlocking contacts. These turn the motor OFF when one housing door is opened while the saw is running.

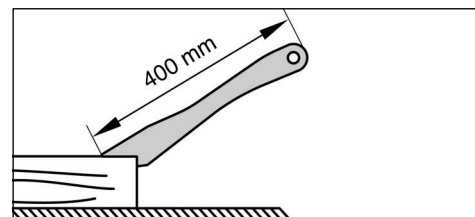
The housing doors must be closed while the machine is in use.

Push stick

The push stick (10) serves as an extension to the hand and protects against inadvertent contact with the saw belt.

The push stick must always be used if the distance between the saw belt and a rip fence is less than 120 mm.

The push stick must be held at angle of 20° ... 30° to the surface of the saw table.



Replace push stick if damaged.

Hang push stick from the holder (12) when not in use.

5. Overview

See page 2 - 3.

- 1 On/off switch cutting line illumination
- 2 On switch
- 3 Off switch
- 4 Housing doors
- 5 Turn-lock fastener for opening the housing door
- 6 Upper saw belt guard (on the upper blade guide)
- 7 Chips holder
- 8 Lower saw belt guard
- 9 Carry handles
- 10 Push stick
- 11 Allen key / tool storage for Allen key
- 12 Holder for storing the push stick
- 13 Hole in saw table
- 14 Saw table
- 15 Table insert
- 16 Chip extraction nozzle
- 17 Lower frame
- 18 Holder for storing the mitre fence
- 19 Transport rollers
- 20 Height-adjustable lower frame foot
- 21 Clamping lever (angle adjustment for saw table)
- 22 Saw table fastening screws
- 23 Setting knob (angle adjustment for saw table)
- 24 Rip fence screw on saw table
- 25 Fence guide extrusion
- 26 Parallel stop
- 27 Knurled nuts for fixing the profile rails
- 28 Profile rails of the parallel stop
- 29 Parallel stop clamping lever
- 30 Stop screws
- 31 Table widener / extension
- 32 Setting knob for saw belt tension
- 33 Display for saw belt tension
- 34 Quick release lever (for loosening the saw belt)
- 35 Mitre fence
- 36 Clamping handle on the mitre fence
- 37 Setting knob (height adjustment for the upper blade guide)
- 38 Lock nut (height adjustment for the upper blade guide)
- 39 Upper blade guide
- 40 Setting knob for drive belt tension
- 41 Dust guard strip
- 42 Lock nut (for setting knob for the angle of the upper band saw rollers)
- 43 Setting knob for the angle of the upper band saw rollers
- 44 Upper thrust bearing
- 45 Screws for upper thrust bearing
- 46 Upper guide bearing
- 47 Screw for upper guide bearing
- 48 Lower thrust bearing
- 49 Screws for lower thrust bearing
- 50 Lower guide bearing
- 51 Screw for lower guide bearing

6. Unpacking, Erection, Assembly and Transport

6.1 Unpacking

Unpack and transport saw with assistance from a second person.

Do not lift or transport saw by holding the upper saw belt guard (6).

6.2 Mount saw

For a safe stand, the saw has to be fixed on a stable base.

Mount on frame:

The **frame (17)**, which is already prepared for holding the saw, provides the optimum working height and stand safety.



Caution!

Attach the frame to the saw the correct way round: If the operator – in the working position – stands in front of the saw, the height-adjustable foot (20) of the frame must be located at the front right.

The assembly instructions for the frame can be found on **on the penultimate page** of this operating manual.

Fasten to work bench:

1. Drill four holes in the supporting surface.
2. Put fixing bolts through the base plate and secure with nuts.

6.3 Installing the Saw Table

1. Guide saw table (14) over the saw belt and place on the saw table guide.
2. Fasten saw table to the saw table guide with four screws (22) and washers - do not tighten, align the saw table first (See chapter 6.4).

6.4 Aligning the Saw Table

The saw table needs to be aligned in two planes

- laterally so that the belt runs accurately in the middle of the table insert;
- at right angles to the band saw blade.

Saw table lateral alignment



Danger!

Risk of injury, even with the band saw blade at standstill. To loosen and tighten the fastening screws use a tool that allows for keeping your hand at a sufficient distance from the band saw blade.

1. Align saw table (14) such that the saw belt is located in the middle of the table insert (15).
2. Tighten the four fastening screws (22).

Aligning the saw table at right angles to the band saw blade

1. Position the blade guide (39) at the very top. (For details see chapter 9.1).
2. Check saw belt tension. (For details see chapter 8.2).
3. Release both clamping levers (21).
4. Turn the setting knob (23) to adjust the saw table (14) horizontally - turn to the stop.
5. Retighten both clamping levers (21).
6. Use a bracket to check whether the saw table is perpendicular to the band saw blade.

If the saw table is not perpendicular to the band saw blade, please adjust the end stop screw (24) as follows:

1. Release both clamping levers (21).
2. Use a hexagon key to turn the end stop screw (24) through the hole (13) in the saw table anticlockwise.
3. Use a bracket to align the saw table perpendicular to the band saw blade and retighten both clamping levers (21).
4. Use a hexagon key to turn the end stop screw (24) through the hole (13) in the saw table clockwise until the end stop screw (24) touches the saw housing.

6.5 Mount carry handles

Tighten the two carrying handles (9) using the screws supplied.

6.6 Installing the fence guide extrusion

- Fasten fence guide extrusion (25) to the saw table using four wing nuts and washers.

6.7 Fit fence guide extrusion

The rip fence (26) can be fitted both on the left or the right of the band saw blade. If the rip fence should be moved from side to the other, the profile rails (28) should be placed on the other side.

Clamping the rip fence

1. Lock rip fence in the rear table edge.
2. Place the rip fence at the front on the fence guide extrusion (25).
3. Fasten rip fence by pushing the clamping lever (29) down.

Attach profile rails to the other side

1. Unscrew knurled screws (27).
2. Remove profile rails (28) together with the fastening screws.
3. Insert profile rails (28) together with the fastening screws from the other side.
4. Screw on knurled nuts (27) and tighten.

6.8 Fit table widener/extension

The table widener/extension (31) can be fitted both to the right and the back of the saw table (14).

1. Unscrew stop screws (30) on the guide rails of the table widener/extension.
2. Push guide rails fully into the holders under the saw table.
3. Retighten the stop screws (30) in the guide rails.
4. Slide table widener/extension to the desired position and fasten with the knurled screws.

6.9 Transport

Position upper blade guide (39) at the very bottom. (For details see chapter 9.1).

Remove projecting accessories.

Do not lift or transport the saw at the safety installations.

Transport the saw with the help of another person. Tilt the saw on the transport handles (9) and then move on the transport rollers (19).

7. Machine Details



Note:

In this chapter the essential operating elements of the machine are introduced.

The proper use of the machine is described in chapter "Operation". Read this chapter before using the saw for the first time.

ON/OFF Switch

- Switching on = Press green switch (2).
- Switching off = Press red switch (3).

Restart protection: An under-voltage relay is triggered if the electricity fails. This prevents the machine from starting up when the power is restored. To restart, the green switch button must be pressed.

Housing door turn-lock fastener

Use the turn-lock fastener (5) to open and close the housing door.

Opening the upper/lower housing door:

1. Rotate the turn-lock fastener (5) several revolutions in an anti-clockwise manner. The housing door opens slightly. This activates the door interlock which switches the motor off.



Danger from exposed band saw blades and wheels!

If the motor does not switch off immediately after opening the door or if the door opens immediately, the door locking mechanism or the locking system is defective. Shut down the

saw and return it to the Service Centre in your country for repair.

2. Rotate turn-lock fastener (5) further anticlockwise.
The housing door opens wide.

Closing the upper/lower housing door:

- Press housing door and rotate turn-lock fastener (5) clockwise until the housing door shuts cleanly.

Setting knob for band saw blade tension

If necessary, the tension of the band saw blade can be corrected using the setting knob (32). (For details see chapter 8.2).

Quick release lever

The quick release lever (34) can be used to release the band saw blade, e.g. to replace the blade.

Setting knob for angle of the upper band saw roller (setting the run of the saw blade)

With the setting knob (43) the angle of the upper band saw blade roller can be changed if required. By adjusting the angle, the band saw blade is aligned such that it runs in the middle of the plastic tyres of the band saw blade rollers. (For details see chapter 10.2).

Speed adjustment

By turning over the drive belt, the band saw blade can be operated with two speed levels (see "technical specifications"). (For details see chapter 9.2).

Setting knob for drive belt tension

The setting knob (40) can be used, if necessary, to correct the tension of the drive belt. (For details see chapter 9.2).

Saw table tilt

After releasing both clamping levers (21) the saw table (14) can be tilted smoothly up to 45° against the band saw blade by turning the setting knob (23).

Rip fence

The rip fence (26) is clamped to the front and is also held in place with the hold-down clamp on the back of the saw table. The rip fence can be used on both sides of the blade. (For details see chapter 6.7).

Mitre fence

The mitre fence (35) is inserted into the groove in the saw table from the front.

For mitre cuts the mitre fence turns to 60° in both directions.

For 45° and 90° mitres positive stops are provided.

To adjust an angle: Release the clamping handle (36) by turning it anticlockwise.



Risk of injury!

The clamping handle (36) must be tight when sawing with mitre fence.

The attachment profile can be moved or removed by loosening the knurled nuts.

Store mire fence (35) in the holder (18) when not in use.

8. Initial Operation



Danger!

Start the saw only after the following preparations have been completed:

- the saw is securely mounted;
- the saw table is installed and aligned;
- Drive belt tension checked;
- the safety devices checked.

Connect the saw to the mains supply only after all of the above preparations are completed! Otherwise there is a risk of an unintentional starting of the saw, which may cause serious personal injury.

8.1 Connect chip extraction



Danger!

Some types of sawdust (e.g. from oak, beech and ash) can cause cancer if inhaled: Only work in a closed room with a dust collector (air speed at the extraction outlets of the saw >= 20 m/s).



Caution!

Operation without a dust collector is only possible:

- outdoors;
- for short use (up to max. 30 minutes);
- with dust respirator.
- If no dust collector is used chips will accumulate, which need to be removed periodically.

Connect duct collector or industrial vacuum cleaner with appropriate adapter to the chip extraction nozzles (16).

8.2 Tighten band saw blade



Danger!

Too much tension can cause the band saw blade to break. Too little tension can cause the driven band saw wheel to slip and the band saw blade to stop.

1. Quick release lever (34) must be in the "Tight band saw blade" position.
2. Move upper blade guide (39) to the very top. (For details see chapter 9.1).
3. Check band saw blade tension: Check setting on the display for the band saw blade tension (33). The scale indicates the correct adjustment depending on the band saw blade width.
4. Correct tension if necessary:
 - Turning the setting knob (32) clockwise increases the tension.
 - Turning the setting knob (32) anticlockwise reduces the tension.

8.3 Connection to Power Mains



Danger! High voltage

- Operate the saw in only in a dry environment.
- Operate the saw only on a power source matching the following requirements (see also "Technical Specifications"):
 - Mains voltage and system frequency must conform to the voltage and frequency shown on the machine's rating label;
 - Protection with an FI switch with an residual current of 30 mA;
 - outlets properly installed, earthed and tested;
 - three-phase outlets with neutral wire installed;



Note:

Check with your local Electricity Board or your electrician if in doubt whether your house service connection meets the requirements.

- Make sure the power supply cable is out of the way, so that it does not interfere with the work and does not pose a tripping hazard or will get damaged.
- Protect the power supply cable from heat, aggressive liquids and sharp edges.
- Only use rubber cables with a sufficient cross section (3 x 1.5 mm² as extension cables, for design with three-phase motor: 5 x 1.5 mm²).
- Do not pull on the power supply cable to unplug.



Change in direction of rotation (only for design with three-phase motor):

Depending on phase sequence the band saw blade may turn in the wrong direction. This can cause the work piece being tossed away when attempting to cut. Therefore, always check direction of rotation after every connection to the power supply.

In the case of wrong direction of rotation, the connection must be changed by an electrician!

1. When the saw is assembled and all safety devices are installed, connect it to the power supply.
2. Start saw briefly and turn OFF immediately again.
3. Note direction of rotation of the band saw blade: **The band saw blade must move from top to bottom in the cutting area.**
4. If the band saw blade turns in the wrong direction, unplug the power supply cable at the saw.
5. Have the electrical connection changed by a qualified electrician!

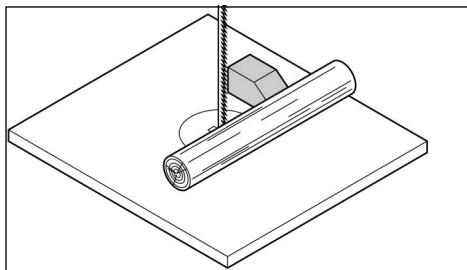
9. Operation



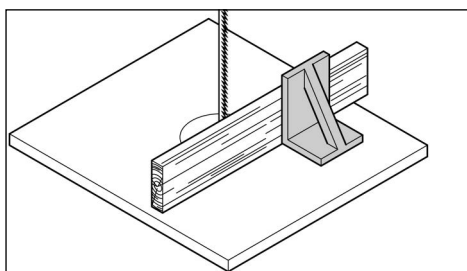
Danger!

To reduce the risk of personal injury as much as possible, the following safety recommendations should be observed when operating the saw.

- Use personal protection gear:
 - dust respirator;
 - ear protection;
 - safety goggles.
- Cut only one work piece at a time.
- Always hold the work piece down on the table.
- Do not jam any work pieces.
- Do not try to slow the band saw blade down or stop it by pushing the work piece against the saw blade from the side.
- If the type of work requires, use the following:
 - Push stick - if the distance to the stop profile - band saw blade <= 120 mm;
 - work support - for long stock, which would otherwise fall off the table on completion of the cut;
 - dust collector;
 - an appropriate jig when cutting round stock, to keep it from turning;



- a suitable guide for firm support when cutting thin stock laid on edge.



- Before starting work, check to see that the following are in proper working order:
 - Band saw blade;

- upper and lower blade guard.
- Replace damaged parts immediately.
- Assume correct work position (the band saw blade's teeth must point towards the operator).
- Never cut several work pieces at the same time - and also no bundles containing several individual pieces. Risk of personal injury if individual pieces are caught by the saw blade uncontrolled.



Entanglement hazard!

- Do not wear loose clothing, jewellery, or gloves, which may get caught and wound up by revolving machine parts.
- Contain long hair with a hairnet.
- Never cut stock to which ropes, cords, strings, cables or wires are attached or which contain such materials.

9.1 Set height of the blade guide

The height of the upper blade guide (39) must be set:

- before each sawing procedure, to adjust to the height of the work piece (the upper blade guide (39) must be approx. 3 mm above the work piece during cutting);
- after adjustments of band saw blade or saw table (e.g. band saw blade change, tensioning of the band saw blade, saw table alignment).



Danger!

Before adjusting the upper blade guide and saw table tilt:

- switch machine OFF;
 - wait until the band saw blade has come to a complete stop.
1. Release lock nut (38).
 2. Turn setting knob (37) so that the upper blade guide (39) is approx. 3 mm above the work piece
 3. Retighten lock nut (38).

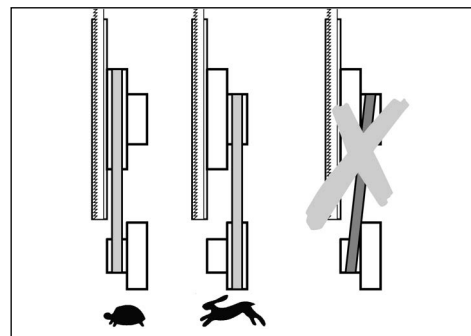
9.2 Set band saw speed

1. Unplug power cable;
2. Open the lower housing door.
3. Loosen drive belt by turning the setting knob (40) clockwise.
4. Place drive belts on the corresponding puller on the drive wheel (lower blade roller) and on the corresponding motor pulley - Note sticker on the inside of the lower housing door.



Caution!


The drive belt must run either on the two front or the two rear pulleys. Never place drive belt diagonally because otherwise it will be damaged!



- Drive belt on front pulleys = low speed, high torque (for hard wood, plastics and non-ferrous metals (with corresponding blade).
 - Drive belt on back pulleys = high speed, low torque (for all woods).
5. Retighten drive belt by turning the setting knob (40) anticlockwise (it must be possible to push the drive belt down about 10 mm in the middle between the rollers).
 6. Close the lower housing door.

9.3 Sawing

1. Adjust the band saw blade speed. (For details see chapter 9.2).
2. If necessary, adjust the table tilt.

 **Risk of kickback (work piece is caught by the band saw blade and thrown against the operator)! Do not jam any work pieces.**

3. If necessary, use the ripe fence (26) or the fence mitre (35).

 **Risk from tilting of work piece!**

When cutting with the ripping fence and inclined workpiece, the ripping fence has to be mounted at the side of the workpiece inclined downwards.

4. Tighten upper blade guide 3 mm above the work piece. (For details see chapter 9.1).

 **Note:**

Always make a trial cut in a piece of scrap to verify settings; correct if necessary before cutting the work piece.

5. Place work piece on the saw table.
6. Start saw.
7. Cut work piece in a single pass.
8. Switch off if no further cutting is to be done immediately afterwards.

10. Care and Maintenance

 **Danger!**

Prior to all servicing:

1. **switch machine OFF;**
2. **Wait until the saw has come to a complete stop.**
3. **Unplug power cable;**
 - Check to see that all safety devices are operational again after each service.
 - Replace defective parts, especially of safety devices, only with genuine replacement parts. Parts not tested and approved by the manufacturer can cause unforeseen damage.
 - Repair and maintenance work other than described in this section should only be carried out by qualified specialists.

10.1 Change saw belt

 **Danger!**

Risk of injury, even with the band saw blade at standstill. Wear gloves when changing blades.

Use only suitable band saw blades (see "Technical Specifications").

1. Remove rip fence (26)
2. Loosen the four wing screws on the fence guide extrusion (25) and remove the fence guide extrusion.
3. Open both housing doors.
4. Fold blade guard (8) forwards.
5. Position upper blade guide (39) at the very bottom.
6. Loosen quick release lever (34) until the band saw blade is loose.
7. Remove dust guard strip (41) by lifting and place to one side.
8. To remove the band saw blade, guide it through
 - the gap in the saw table (14),
 - the blade guard at the upper blade guide (39),
 - the side blade shaft and
 - the blade guides
9. Fit a fresh band saw blade. Check the correct position: Teeth point towards the front (door side) of the saw.

10. Centre band saw blade on the rubber tyres of the band saw wheels.

11. Retighten the quick release lever (34) until the blade no longer slips.
12. Replace dust guard strip (41).
13. Fold lower blade guard (8) backwards (close).

 **Danger!**

Close housing doors only when the lower blade guard is in its closed position.

14. Close both housing doors.
15. Then:
 - Tighten band saw blade (see chapter 8.2);
 - Align blade (see chapter 10.2);
 - Set blade guides (see chapter 10.3 and 10.4);
 - let saw test run for at least one minute;
 - stop saw, unplug and recheck settings.

10.2 Align band saw blade (set run of band saw blade)

If the band saw blade does not run in the centre of the rubber tyres, the tracking needs to be corrected by adjusting the tilt of the upper band saw wheel:

1. Release lock nut (42).
2. Turn setting knob (43):
 - If the band saw blade is to run more to the rear of the saw: turn setting knob (43) clockwise.
 - If the band saw blade is to run more to the front of the saw: turn setting knob (43) anticlockwise.
3. Retighten lock nut (42).

10.3 Align upper blade guide

The upper blade guide consists of:

- a thrust bearing (supporting the band saw blade from the rear),
- two guide bearings (providing lateral support).

These parts must be realigned after each blade change and each blade alignment:

 **Note:**

Periodically check all bearings for wear, if necessary replace both guide bearings at the same time.

Adjusting the thrust bearing

1. Loosen screw (45) for thrust bearing.
2. Align thrust bearing (44) (distance from thrust bearing blade = 0.5 mm – when the blade is moved by hand it must not touch the thrust bearing)
3. Retighten screw (45) for thrust bearing.

Adjusting the guide bearings

4. Loosen screw (47) for guide bearing.
5. Move guide bearing (46) so that is gently touching the band saw blade.
6. Retighten screw (47) for guide bearing.
7. Set the guide bearing on the other side of the band saw blade in the same way.

10.4 Align lower blade guide

The lower blade guide consists of:

- a thrust bearing (supporting the band saw blade from the rear),
- two guide bearings (providing lateral support).

These parts need to be readjusted after every band saw blade change or tracking adjustment:

 **Note:**

Periodically check thrust bearings and guide bearings for wear, if necessary replace both guide bearings at the same time.

Preparation

1. Open lower housing door and lower blade guard (8).

Adjusting the thrust bearing

1. Loosen screw (49) for thrust bearing.
2. Align thrust bearing (48) (distance from thrust bearing blade = 0.5 mm – when the blade is

moved by hand it must not touch the thrust bearing)

3. Retighten screw (49) for thrust bearing.

Adjusting the guide bearings

4. Loosen screw (51) guide bearing.
5. Move guide bearing (50) so that is gently touching the band saw blade.
6. Retighten screw (51) for guide bearing.
7. Set the guide bearing on the other side of the band saw blade in the same way.
8. Close lower guard (8).
9. Close the lower housing door.

10.5 Replacing the band saw tyre

Regularly check the plastic tyres on the band saw rollers for wear. Replace only in pairs:

1. Remove blade (see chapter 10.1).
2. Lift band saw tyre with a small screwdriver, then pull off the band saw wheel.
3. Mount new band saw tyres and reinstall the band saw blade.

10.6 Table insert change

The table insert (15) must be changed if the sawing gap is damaged.

1. Remove screws at table insert.
2. Remove table insert.
3. Insert new table insert.
4. Tighten the screws at the table insert.

10.7 Cleaning the Saw

1. Open the lower housing door.
2. Remove and empty the chips holder (7).
3. Remove chips and saw dust with brush or vacuum from:
 - inside of the lower band saw housing;
 - blade guides;
 - operating elements
4. Replace chips holder (7).

10.8 Storage

 **Danger!**

Store saw where

- it cannot be used or tampered with by unauthorized persons and
- cannot injure anyone standing on the device.

 **Caution!**

Do not store the saw outdoors, in unprotected areas or in damp or wet locations.

11. Accessories

Use only genuine Metabo accessories.

Use only accessories that fulfil the requirements and specifications listed in these operating instructions.

- | | |
|--|------------|
| A Band saw blade for wood, plastic - curved cuts | 0909029252 |
| B Band saw blade for wood, plastic - universal cuts | 0909029244 |
| C Band saw blade for wood, plastic - straight cuts | 0909029260 |
| D Band saw blade for non-ferrous metals, foams | 0909029279 |
| E Circle cutter (max. cutting height 105mm) | 631327000 |
| F Belt grinder | 631333000 |
| G Abrasive belt K80 (suitable for use with belt grinder 631333000) | 0909030528 |
| H Abrasive belt K120 (suitable for use with belt grinder 631333000) | 0909030536 |

I Metabo all-purpose vacuum cleaner and extraction units
(see catalogue)

J Roller stand RS 420 0910053353

For a complete range of accessories, see www.metabo.com or the catalogue.

12. Repairs



Danger!

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

If the mains connection lead of this device is damaged, it must be replaced with an original Metabo mains connection lead.

Contact your local Metabo representative if you have Metabo power tools requiring repairs. See www.metabo.com for addresses.

You can download a list of spare parts from www.metabo.com.

13. Environmental Protection

Observe national regulations on environmentally compatible disposal and on the recycling of disused machines, packaging and accessories.

Packaging materials must be disposed of according to their labelling in accordance with municipal guidelines. Further information can be found at www.metabo.com in the "Service" section.



Only for EU countries: never dispose of power tools in your household waste! Used power tools must be collected separately and handed in for environmentally compatible recycling in accordance with European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in national legal systems.

14. Troubleshooting Guide

Following you will find a description of problems and faults that you may remedy yourself. If the corrective measures described here do not help, kindly refer to chapter 12. "Repairs".



Danger!

There are particularly many accidents in connection with problems and faults. Therefore keep in mind:

- Disconnect the mains plug prior to any fault service.
- Check to see that all safety devices are operational after each fault service.

Motor does not run

Undervoltage relay tripped by power failure:
– switch on again.

No mains voltage

– Check cables, plug, outlet and mains fuse.

Motor overheated, e.g. by a blunt band saw blade or chip build-up in the housing:

– remove cause for overheating, let cool down for a few minutes, then start again.

Motor and band saw blade turn in the wrong direction

Connection sequence of the phases is reversed (only possible with saw with 400 V connection):

– Have connection checked by a qualified electrician.

Band saw blade wanders off the line of cut or runs off the band saw wheels

Band saw blade is not running dead centre on the band saw wheels:

– correct tracking (see "Care and Maintenance").

Band saw blade breaks

Incorrect tension:

– correct band saw blade tension (see "Initial Operation").

Load too high:

– reduce pressure against band saw blade (reduced feed rate).

Incorrect band saw blade:

– replace band saw blade (see "Care and Maintenance"):
thin work piece = narrow band saw blade,
thick work piece = wide band saw blade.

Band saw blade warped

Load too high:

– avoid lateral pressure on the band saw blade.

Saw vibrates

Insufficient mounting:

– Fasten saw properly to a suitable surface (see "Initial operation").

Saw table loose:

– align and fasten saw table.

Motor mount loose:

– check fastening screws, tighten if necessary.

Dust extraction port blocked

No dust collector connected or suction capacity insufficient:

– Connection extraction unit or increase extraction power (air speed ≥ 20 m/sec at the chip extraction nozzles).

Band saw blade is still while the motor turns

Belt tension too low:

– Increase belt tension using the setting knob (40).


15. Technical Specifications

Explanations of the details on page xy.

Changes due to technological progress reserved.

U	= Mains voltage
I	= Rated power
F	= Min. fuse protection
P ₁	= Rated input power
P ₂	= Power output
n ₀	= No-load speed
v ₀	= Cutting speed
S _L	= Band saw blade length
S _B	= Band saw blade width
S _D	= Max. blade thickness
H	= Max. cutting height
W	= Saw table swivel range
A ₁	= Machine dimensions (LxWxH)
A ₂	= Saw table dimensions (LxW)
A _h	= Working with frame
m	= weight
D ₁	= connection diameter of the extraction nozzle

~ AC Power

 Machine in protection class II

The technical specifications quoted are subject to tolerances (in compliance with the relevant valid standards).

Emission values

These values make it possible to assess the emissions from the power tool and to compare different power tools. The actual load may be higher or lower depending on the operating conditions, the condition of the power tool or the accessories. Please allow for breaks and periods for assessment purposes when the load is lower. Arrange protective measures for the user, such as organisational measures based on the adjusted estimates.

Vibration total value (vector sum of three directions) determined in accordance with EN 61029:

a_h = vibration emission value
K_h = Uncertainty (vibration)

Typical A-effective perceived sound levels:

L_{pA} = sound-pressure level
L_{WA} = acoustic power level

K_{pA}, K_{WA} = uncertainty

 **Wear ear protectors!**