

 Original operating instructions
Saw Blade Sharpener

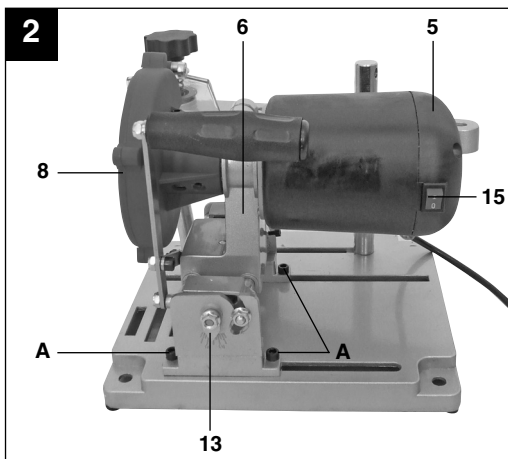
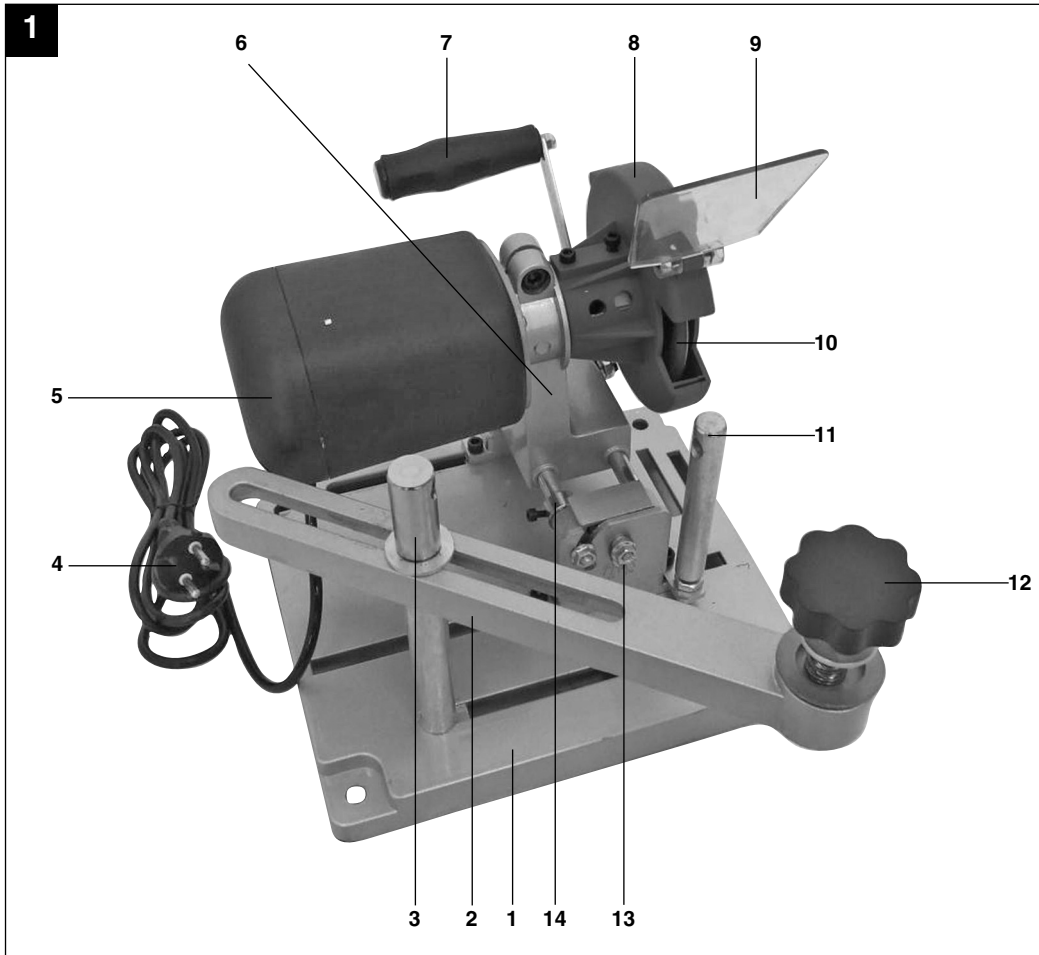
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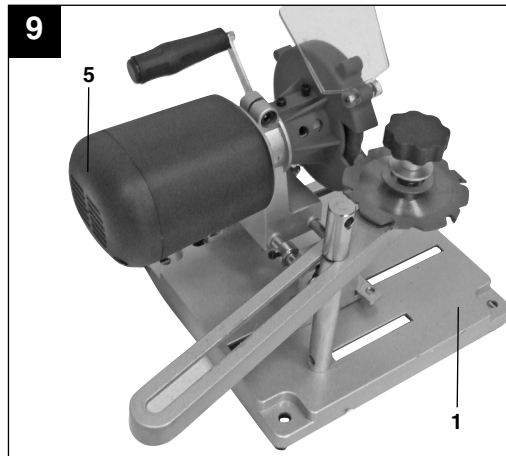
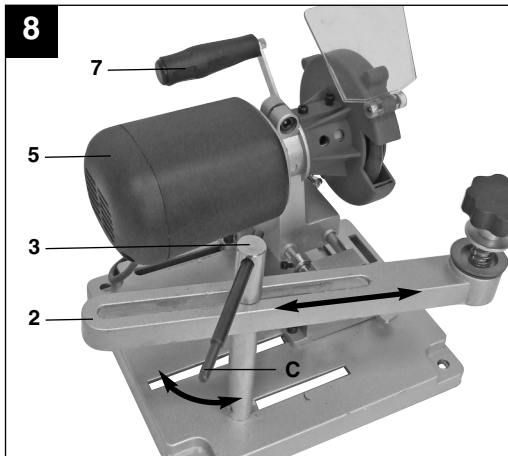
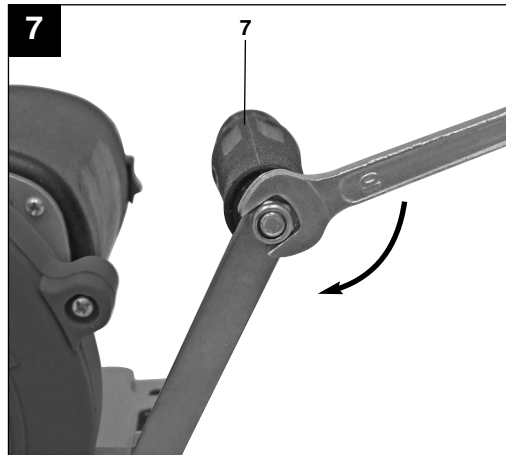
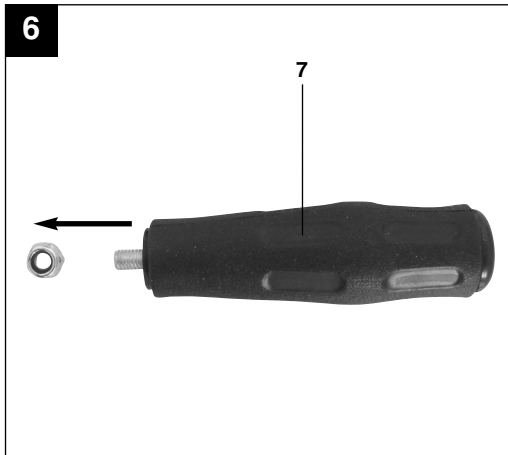
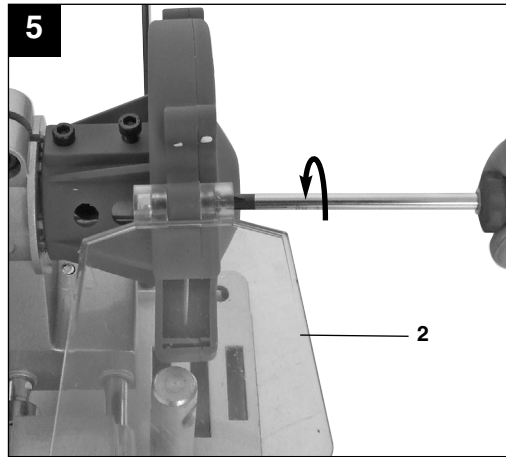
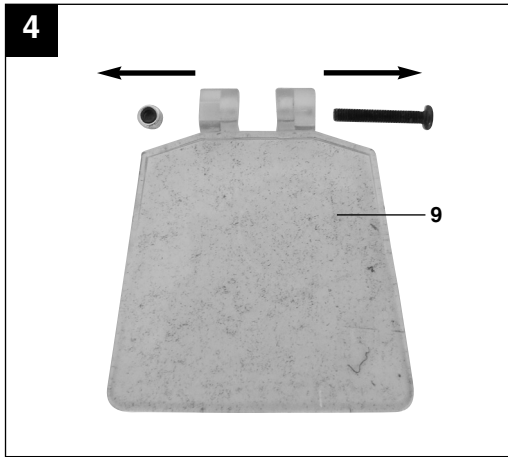
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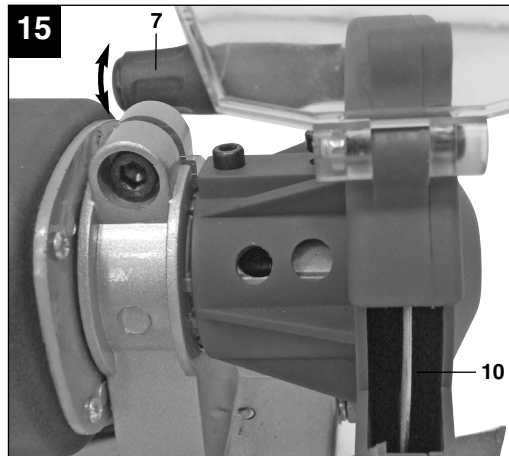
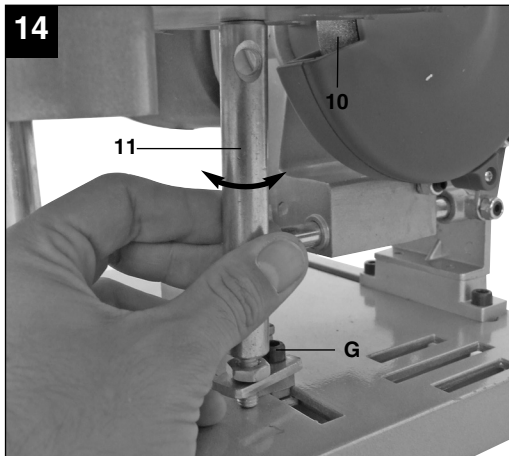
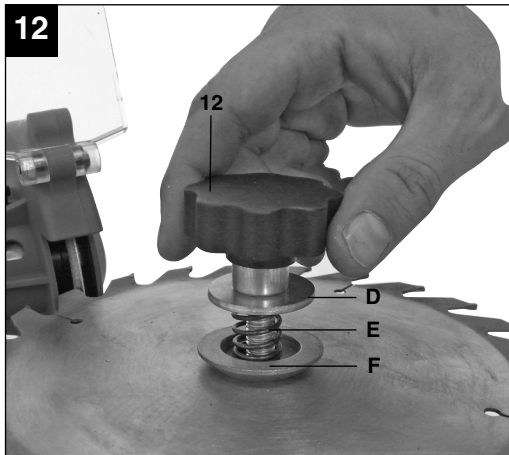
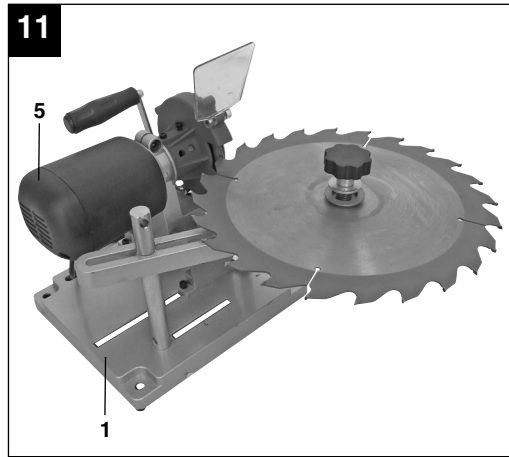
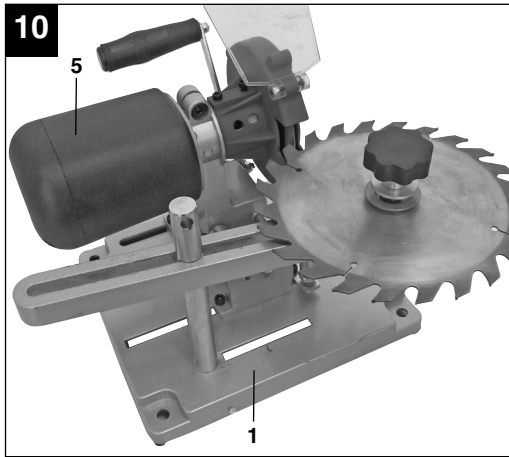
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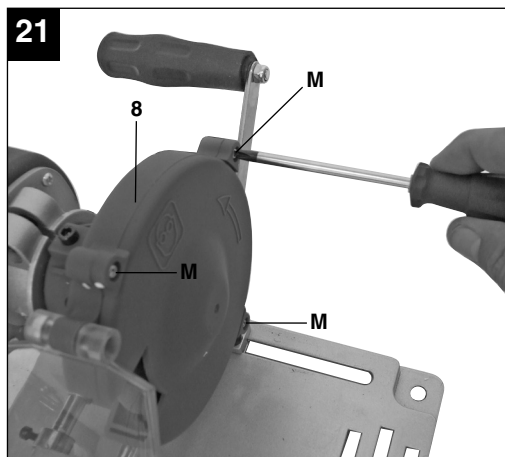
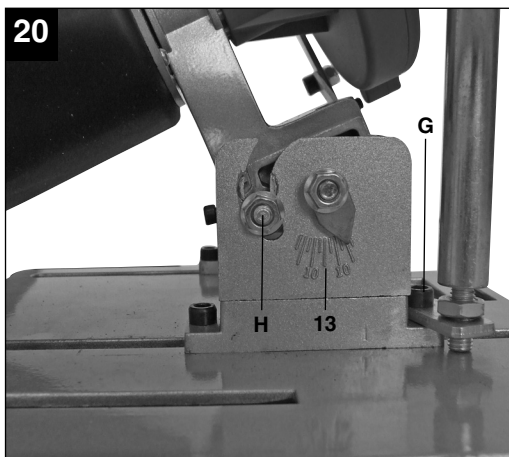
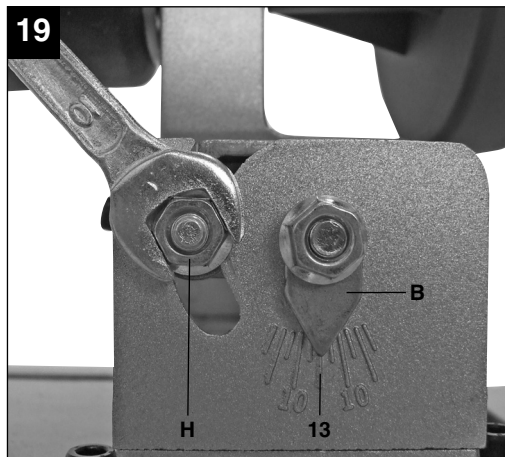
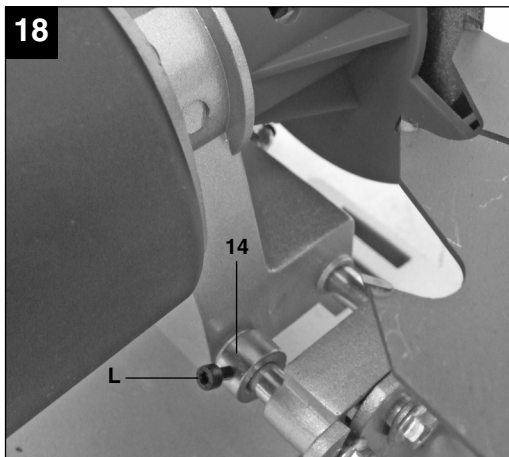
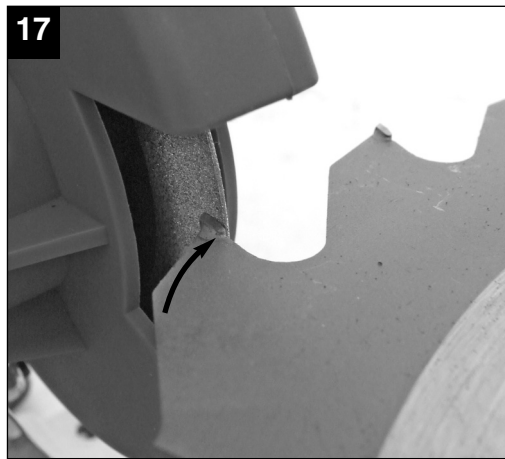
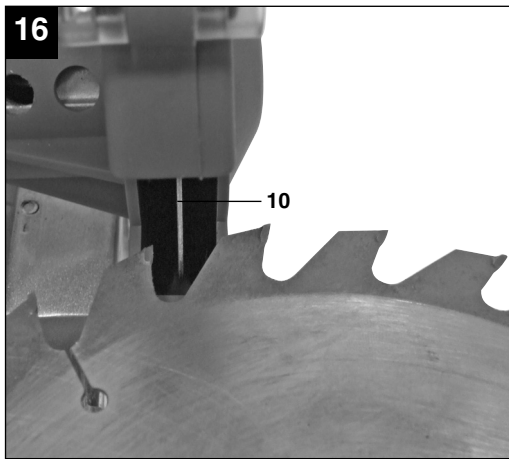
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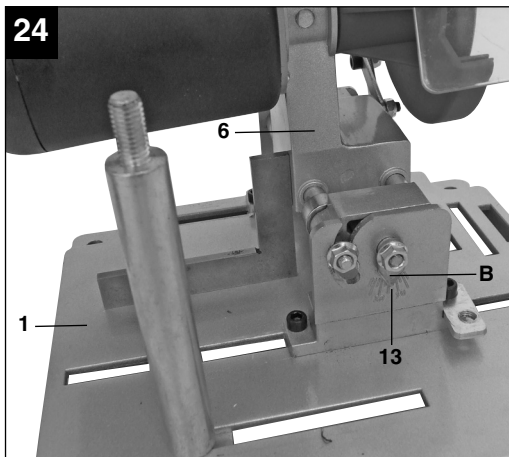
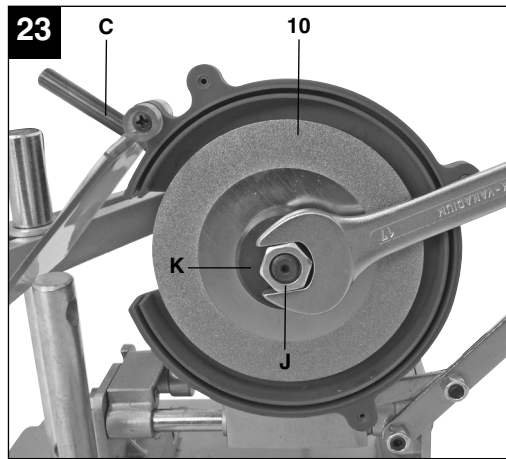
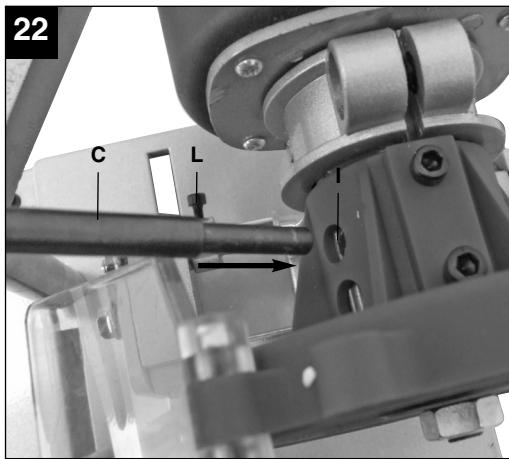
BT-SH 90/350











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“Caution - Read the operating instructions to reduce the risk of injury”



Wear ear-muffs.

The impact of noise can cause damage to hearing.



Wear gloves.

You must wear gloves at all times when handling saw blades.



Wear safety goggles.

Sparks generated during working or splinters, chips and dust emitted by the device can cause loss of sight.

⚠ Important!

When using equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating manual with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, give them these operating instructions as well.

We accept no liability for damage or accidents which arise due to non-observance of these instructions and the safety information.

1. Safety regulations

The corresponding safety information can be found in the enclosed booklet.

⚠ CAUTION!

Read all safety regulations and instructions.

Any errors made in following the safety regulations and instructions may result in an electric shock, fire and/or serious injury.

Keep all safety regulations and instructions in a safe place for future use.

2. Layout (Fig. 1/2)

1. Base plate
2. Mounting arm
3. Locking screw
4. Power cable
5. Motor
6. Motor holder
7. Handle
8. Grinding wheel cover
9. Safety glass
10. Grinding wheel
11. Saw blade support
12. Star handle nut
13. Angle scale
14. Stop
15. ON/OFF switch

3. Items supplied

Take all the parts out of the packaging. Check that nothing is missing.

- Saw blade sharpener
- Handle (7)
- Safety glass (9)
- Assembly tool
- Operating instructions
- Safety regulations

4. Proper use

The saw blade sharpener is designed for sharpening carbide-tipped saw blades with a diameter of 90 - 350 mm.

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


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

The machine must only be used for its intended purpose! Even when the equipment is used as prescribed it is still impossible to eliminate certain residual risk factors. The following hazards may arise in connection with the machine's construction and layout:

- Contact with the grinding wheel where it is not covered.
- Catapulting of parts from damaged grinding wheels.
- Catapulting of workpieces and parts of workpieces from the machine.
- Damage to hearing if ear-muffs are not used as necessary.

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5. Technical data

Mains voltage:	230 V ~ 50Hz
Power input:	110 W S3 50% 15min
Idling speed:	5,300 rpm
Max. useful grinding wheel diameter:	103 mm
Grinding wheel dimensions:	Ø 100 x Ø 20 x 1.2 mm
Tilting range	-25° - +25°
Carbide-tipped saw blade	
	Ø 16-32 mm x Ø 90-350 mm
Protection class:	II / 
Protection type:	IP 20
Weight:	4.8 kg

Sound and vibration

Sound and vibration values were measured in accordance with EN 61029.

L_{pA} sound pressure level	89.4 dB(A)
K_{pA} uncertainty	3 dB
L_{WA} sound power level	100.4 dB(A)
K_{WA} uncertainty	3 dB

Wear ear-muffs.

The impact of noise can cause damage to hearing.

S3 50%: Intermittent mode, no start-up, no braking (cycle duration 15 minutes). In intermittent mode, the percentage load factor (50%) is always quoted so that the heat generated during this period can be dissipated during breaks in operation by convective cooling. Intermittent mode consists of the on time and the cooling breaks, known as the duty cycle. The period of consideration is 15 minutes. 50% load factor means that the electric tool can be operated for 7.5 minutes at the rated performance, followed by a cooling phase of 7.5 minutes.

6. Before starting the equipment

Before you connect the equipment to the mains supply make sure that the data on the rating plate are identical to the mains data.

Always pull the power plug before making adjustments to the equipment.

6.1 Assembly

6.1.1 Fitting the safety glass (Fig. 4-5 / Item 9)

Fit the safety glass (9) as shown in Figure 4-5. The safety glass (9) must be pulled down at all times during operation to protect your eyes from injury from pieces of carbide metal and sparks being flung out of the equipment.

6.1.2 Fitting the handle (Fig. 6-7 / Item 7)

Fit the handle (7) as shown in Figure 6-7.

6.1.3 Fastening

Bolt the machine securely to the surface using the holes in the base plate (1).

6.2 Inserting saw blades

- Move the motor (5) to its rear position using the handle (7) and set the tilt angle to 0° (see also 6.3) (Fig. 8).
- For small diameters slide the motor (5) on the base plate (1) to the rear by undoing the four Allen screws (A) on the motor holder (Fig. 2). When the motor (5) is in the required position, tighten the Allen screws (A) again. For medium sized saw blade diameters the motor (5) should be positioned in around the center, for large diameter saw blades it should be right at the front of the base plate (1) (Fig. 9 – 11).
- Undo the locking screw (3) on the mounting arm (2) using the pin (C) (Fig. 8).
- Undo the star handle nut (12), washer (D), spring (E) and clamping flange (F) from the mounting arm (2) and secure the saw blade to the mounting arm (2) using these parts (Fig. 12). The cutting angles of the saw blade must point to the right at the grinding point.
- Align the saw blade so that the cutting angle of the teeth is parallel to the grinding wheel (10) and the distance between the two is approx. 15 mm. Secure the saw blade in this position by tightening the locking screw (3) using the pin (C).
- Set up the saw blade support (11) using the Allen screw (G) and the screw connection on the underside of the saw blade support (11) so that the saw blade is at a 90° angle to the grinding wheel (10) and rests on the saw blade support

(11). The saw blade support (11) should be positioned as close as possible to the grinding point (Fig. 14).

- Now move the grinding wheel (10) using the handle (7) between the teeth of the saw blade so that when the saw blade is turned clockwise against the grinding wheel (10) the whole surface area of the carbide metal plate on the saw blade lies flat on the grinding wheel (10) (Fig. 15 – 17).
- Important. Do not move the motor so far forwards that the saw blade can be touched by the grinding wheel.
- Adjust the stop (14) so that the grinding wheel (10) cannot be moved beyond this position into the saw blade and secure it in this position using the Allen screw (L) (Fig. 18).

6.3 Setting the tooth set angle

In addition to the tilt angle of the motor (5), the saw blade set must be adjusted accordingly for set saw blades. For this purpose undo the two nuts (H), tilt the motor (5) until the required angle is shown on the scale (13) and secure it by tightening the two nuts (H) (Fig. 19 – 20).

7. Operation

7.1 ON/OFF switch (Fig. 2 / Item 15)

- Set the ON/OFF switch (15) to the "I" position to switch on the equipment.
- Set the ON/OFF switch (15) to the "0" position to switch off the equipment.

7.2 Grinding saw blades

Proceed as follows to grind saw blades:

- Switch on the equipment (see 7.1)
- Turn the saw blade so that the grinding wheel (10) is between the saw blade teeth and then move the grinding wheel (10) as far as possible to the front using the handle (7) (Fig.15-16).
- Turn the saw blade slowly and carefully in a clockwise direction into the rotating grinding wheel (10) and grind the carbide metal plates on the saw blade until their cutting edge has been sharpened (Fig. 17). When the grinding wheel is at 12 o'clock, your hands must be at 3 o'clock and 9 o'clock on the saw blade.
- Turn the saw blade back anti-clockwise so that the grinding wheel (10) can run freely between the saw blade teeth. Move the motor (5) to the rear again using the handle (7).
- Turn the saw blade one tooth further and repeat the process until you have sharpened all the teeth.

7.3 Grinding set saw blades

- To grind saw blades with set teeth, the motor (5) must be tilted to the set angle of the saw blade as described in point 6.3.
- Then proceed as described in point 7.2 but in this case every second tooth must be ground according to its set.
- Then adjust the angle to the set of the teeth you have not yet ground (see point 6.3) and grind those teeth as described above.

8. Replacing the power cable

If the power cable for this equipment is damaged, it must be replaced by the manufacturer or its after-sales service or similarly trained personnel to avoid danger.

9. Cleaning, maintenance and ordering of spare parts

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

9.1 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.

9.2.1 Replacing the grinding wheel

When the grinding capacity of the equipment falls noticeably, the grinding wheel should be replaced.

- Undo the three screws (M) on the grinding wheel cover (8) and remove it (Fig. 21).
- Place the pin (C) in the opening (I) and slowly turn the grinding wheel (10) by hand until the pin (C) blocks the equipment's drive shaft (Fig. 22).
- Position a wrench on the flange nut (J), hold the pin (C) and undo the flange nut (J) by turning it anti-clockwise (Fig. 23).
- Remove the flange nut (J), external flange (K) and grinding wheel (10). Clean the flange and fit the new grinding wheel using the above instructions in reverse and secure it.

GB**9.2.2 Adjusting the tilt angle**

Check the tilt angle of the motor (5) before using the equipment for the first time and at regular angles thereafter. To do this, place a stop angle between the base plate (1) and the motor holder (6) and check whether the pointers (B) on the scales (13) display 0° (Fig. 23). If this is not the case, undo the retaining nuts on the pointers (B) and adjust them.

9.3 Ordering replacement parts:

Please quote the following data when ordering replacement parts:

- Type of machine
- Article number of the machine
- Identification number of the machine
- Replacement part number of the part required

For our latest prices and information please go to www.einhell.com.au

10. Disposal and recycling

The unit is supplied in packaging to prevent its being damaged in transit. This packaging is raw material and can therefore be reused or can be returned to the raw material system.

The unit and its accessories are made of various types of material, such as metal and plastic. Defective components must be disposed of as special waste. Ask your dealer or your local council.

The guarantee provided in this Guarantee Certificate is given by Einhell Australia Pty Limited
ACN 134 632 858 of 6/166 Wellington Street, Collingwood, Victoria (Telephone number 1300 922 271)
(Einhell Express Guarantee).

GUARANTEE CERTIFICATE

Dear Customer,

All of our products undergo strict quality checks. In the unlikely event that your device develops a fault, please contact our service department at the address shown on this guarantee certificate. Of course, if you would prefer to call us then we are also happy to offer our assistance under the service number printed below. Please note the following terms under which claims under the Einhell Express Guarantee can be made:

1. The benefits conferred by the Einhell Express Guarantee are in addition to all rights and remedies which you may be entitled to under the Australian Consumer Law, and any other statutory rights you may have under other applicable laws. This Einhell Express Guarantee does not exclude, restrict or modify any such rights or remedies.

We do not charge you for the Einhell Express Guarantee.

2. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
3. The Einhell Express Guarantee only covers problems caused by material or manufacturing defects, and our liability under the Einhell Express Guarantee is limited, at our discretion, to the rectification of these defects or replacement of the product. Please note that the product has not been designed for use in commercial, trade or industrial applications. Consequently, the Einhell Express Guarantee will not apply if the product is used in commercial, trade or industrial applications or for other equivalent activities.
4. The following are also excluded from the Einhell Express Guarantee: compensation for transport damage, damage caused by failure to comply with the installation/assembly instructions or damage caused by unprofessional installation, failure to comply with the operating instructions (e.g. connection to the wrong mains voltage or current type), misuse or inappropriate use (such as overloading of the product or use of non-approved tools or accessories), failure to comply with the maintenance and safety regulations, ingress of foreign bodies into the product (e.g. sand, stones or dust), effects of force or external influences (e.g. damage caused by the product being dropped) and normal wear resulting from proper operation of the product. The Einhell Express Guarantee will also not apply if any attempt is made to tamper with the product.
5. The Einhell Express Guarantee is valid for a period of 2 years starting from the purchase date of the product. Claims made under the Einhell Express Guarantee should be submitted before the end of this guarantee period and within two weeks of the defect being noticed. No claims under the Einhell Express Guarantee will be accepted if submitted after the end of this guarantee period. The original guarantee period remains applicable to the device even if repairs are carried out or parts are replaced. In such cases, the work performed or parts fitted will not result in an extension of the guarantee period for the Einhell Express Guarantee, and the Einhell Express Guarantee will not apply for the work performed or parts fitted. This also applies when an on-site service is used.
6. To make a claim under the Einhell Express Guarantee, please send the relevant product postage-free to the address shown below and enclose either the original or a copy of your sales receipt or another dated proof of purchase. It would help us if you could describe the nature of the problem in as much detail as possible. If the defect is covered by the Einhell Express Guarantee, your product will be repaired immediately and returned to you, or we will send you a new device (at our election).

Any costs incurred by you in making a claim under this Einhell Express Guarantee, unless specified otherwise in this guarantee certificate, must be borne by you.

Of course, we are also happy to offer a chargeable repair service for any defects which are not covered by the scope of the Einhell Express Guarantee or for products which are no longer covered by the Einhell Express Guarantee. To take advantage of this service, please send the product to our service address.

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