



Schleiferl

EN

Operating manual

Sharpening tool for saw chains

Page 18

Content

	Page
1. Technical specifications	18
2. Intended use	19
3. Product and service description	20
4. Safety instructions	22
5. Settings	25
6. Operation	26
7. Maintenance/testing	28
8. Malfunction and repair	29
9. Render inoperative	31
10. Proper disposal	31
11. Application advice	31
12. Guarantee	32
13. Environmental aspects	32
14. EC Statement of Conformity	32

1. Technical specifications

Designation	Schleiferl
Mass (kg)	1.2
Length (mm)	310
Width (mm)	105
Height (mm)	75
Min. speed (rpm)	3,000
Max. speed (rpm)	4,500
Hand arm vibration*	< 2.5m/s ²

Attention: The vibration emission during actual use of the grinder can deviate from the specified emission value depending on how the tool is used.

2. Intended use

The intended use of the “Schleiferl” is the sharpening of saw chains for woodworking. Here it is used to re-sharpen the cutting teeth of full and half chisel chains.

Cordless screwdrivers with a minimum speed of 3,000 rpm are required to drive the grinder. Small rotary impact wrenches (hex screwdrivers) are best. These are available from various manufacturers.

Possible devices are:

- Makita DTD153
- Makita DTD171
- Milwaukee M18 FID2
- Milwaukee M18 BID
- DeWalt DCF887
- Bosch GDR 18V-200 C

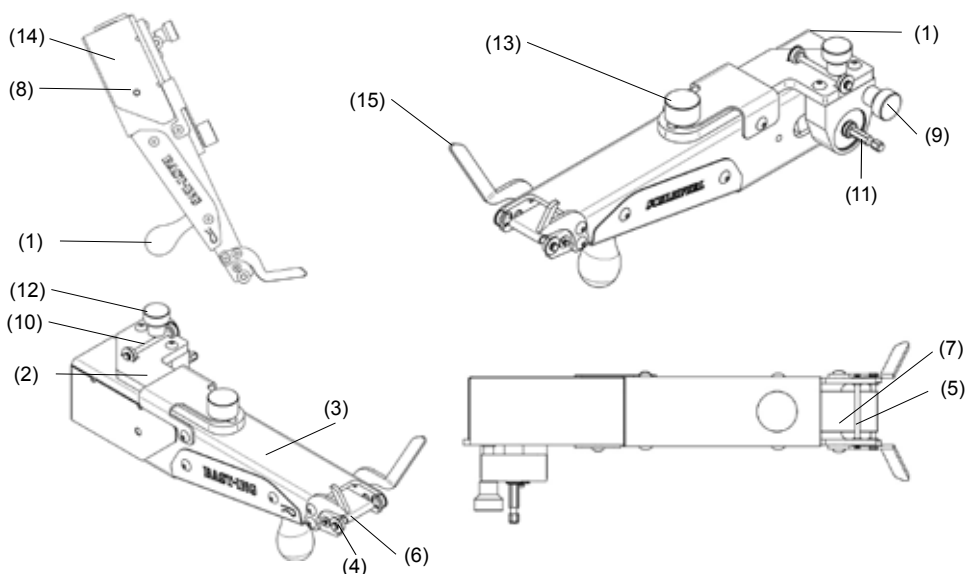
The list of possible screwdrivers does not claim to be complete and does not give a purchase recommendation. The list only includes example devices with which the grinder can be driven well.

If the Schleiferl

- not used as intended
- overloaded
- wrong or not serviced

the manufacturer assumes no liability for any resulting damage!

3. Product and service description



(1)	Grab handle	The grinder is guided by the handle with the right hand.
(2)	Sliding plate	A spring is built into the sliding plate by means of which the belt tension is applied. To change the sanding belt, the sliding plate must be pushed forward and fixed with item 13.
(3)	Carrier tube	The carrier tube is made of aluminum. All components are attached to it.
(4)	Bearings	The bearings allow the shafts to move relative to the carrier tube. The bearings are easy to clean after changing the sanding belt. If the bearings are worn (noises, sluggishness), the bearings must be replaced immediately.
(5)	Return shaft	The return shaft guides the sanding belt upwards directly after the sanding shaft. The task of the return shaft is to ensure that the chain's depth gauges are not accidentally abraded. The return shaft is protected with a special textile adhesive tape – this wears out over time. Before each use, it must be checked whether the steel shaft in the area of the sanding belt is still completely protected by the textile adhesive tape.

(6)	Grinding shaft	The grinding shaft engages in the tooth. A suitable grinding shaft must be used depending on the chain pitch.
(7)	Sanding belt	The sanding belt carries out the sanding process. Use only approved abrasive belts. The original abrasive belts are optimized for chain sharpening and achieve correspondingly good sharpening results.
(8)	Wing nut cover hood	The cover hood can be removed with this wing nut. This is necessary to change the sanding belt.
(9)	Wing nut grinding belt guide	With item 9 the belt run of the sanding belt is corrected/set.
(10)	Exchange shaft	At this point in the grinder, the grinding shaft is kept for further chain divisions.
(11)	Drive shaft	The grinder is driven by a 6.3 mm hexagon (1/4" bit holder). The grinder must be positively connected to the drive shaft with a suitable drive device. This must be set clockwise.
(12)	Wing nut exchange shaft	The replacement shaft is fixed to the grinder with this nut.
(13)	Wing nut sliding plate	This wing nut is loose during regular operation. When changing the sanding belt, the sliding plate is pushed forward and locked with the wing nut (13). This means that the sanding belt can be easily changed.
(14)	Cover	This cover protects you from unintentionally reaching into the sanding belt. Only remove this to change the sanding belt.
(15)	Angle display	The angle displays provide orientation when sharpening the teeth. For a correct and even sanding, these should be held/positioned parallel to the saw bar when sharpening. With the supplied gauge, these can be set to the desired angle.

4. Safety instructions

Read all safety warnings and instructions.

Failure to comply with the safety instructions and instructions can result in electric shock, fire and/or cause serious injuries!



Before commissioning, the grinder must be checked for possible damage and suitability for use ensured.



Do not use the system if you are not familiar with it.



Only use the system if you are physically and mentally qualified.



Special safety instructions for belt grinders:

Do not use in the vicinity of highly flammable material – risk of fire!

Make sure that you are not endangered by dust, sparks, shavings, smoke, fog or even noise. Processing processes with grinding belts can generate high concentrations of dust, smoke or even mist. In addition to a health hazard, this can also include a risk of explosion. Always wear extensive protective equipment when grinding:

- Protective gloves
- Safety goggles
- Respiratory protection mask with filter class FFP2



Prevent long hair, loose clothing and jewelry from coming into contact with the machine and being drawn in. Serious injury can result.



Dust from materials such as metals and sanding belt dust can be harmful to health. Touching or inhaling the dust can cause allergic reactions and/or respiratory diseases of the user or other people in the vicinity.



Familiarize yourself with the individual components and how saw chains work.



When grinding, be very careful not to grind or weaken any drive link of the saw chain. If you weaken the drive links of the saw chain, the chain can break during operation and seriously injure the user.



Guide the grinder so that the angles and dimensions prescribed by the saw chain manufacturer are observed. If necessary, practice with chains that are no longer used on the chainsaw afterwards.



Check the locking of the machine covers. Under no circumstances remove existing protective covers. Touching and contact with rotating sanding belts can cause serious injuries.



Pay attention to the direction of rotation arrow when clamping.



After clamping, make sure that the machine covers are locked. Carry out a test run at full working speed for at least 10 seconds and check for vibrations or unusual noises and correct if necessary.



Check the safe clamping or feeding of the workpiece.



Load the sanding belt as flat as possible and in the middle area. Sanding with the edges and strong point loads, e.g. by pointed or sharp-edged workpieces.



Avoid overstressing and overheating of the sanding belt due to excessive sanding pressure.



Regularly check sanding belts for excessive wear and damage, e.g. cracks on edges, breaks or severe signs of wear in the area of the connection point, check and replace if necessary.



Retain all safety notices and instructions for future use.



Keep your work area clean and well-lit. Cluttered or unlit work areas can lead to accidents.



Do not work with the power tool in an explosive environment in which there are flammable liquids, gases or dust. Power tools generate sparks that can ignite the dust or fumes.



Keep children and other people away while using the power tool.



Be attentive, pay attention to what you are doing, and use your common sense to go to work. Do not use the grinder when you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while using the sander can result in serious injury.



Maintain grinding tools with care. Check whether moving parts are working properly and are not jamming, whether parts are broken or damaged in such a way that the function of the power tool is impaired. Have damaged parts repaired before using the device.



Have your power tool repaired only by qualified specialists and only with original spare parts. This ensures that the safety of the power tool is maintained.



Never touch the running sanding belt. There is a risk of injury.



Make sure that nobody is endangered by flying sparks. Remove combustible materials from nearby. When grinding metals, flying sparks occur.



Do not use worn, torn or heavily clogged abrasive belts. Damaged sanding belts can tear, be thrown away and injure someone.



Avoid dust accumulation in the workplace. Dust can easily ignite.



Hold the tool firmly in your hands while working and ensure that you are standing securely.



Secure the chainsaw. A saw held in place with a clamp or vice is more secure than a loosely set chainsaw.



Wait until the grinder has come to a standstill before you put it down. The accessory tool can get stuck and lead to loss of control of the power tool.



Read all safety warnings and instructions. Failure to follow the safety instructions and instructions can cause fire, chronic illness and/or serious injury.

Never use a grinding machine that does not work properly or that contains defective components. Employers should carry out a risk assessment of all grinding processes in order to be able to take the appropriate safety precautions in each case. They should ensure that their employees are adequately trained to perform their duties.

5. Settings

The following settings must be made before using the grinder.

Insert the appropriate grinding shaft for the chain division

Diameter Grinding shaft Schleiferl	Mark	Chain division
1.8 mm	no groove	1/4 " Picco
2.6 mm	1 groove	3/8 " Picco
3.2 mm	2 grooves	0,325 "
3.8 mm	3 grooves	3/8 "
4.2 mm	4 grooves	0,404 "

Adjusting a central belt run

- Use a screwdriver to check whether the sanding belt runs in the middle of the sander.
- If necessary, correct the position of the sanding belt with the knurled screw (9).
- Setting the angle displays to the desired grinding angle:
 - Chest angle/roof angle: The desired chest angle can be set using the elongated hole in the angle displays.
 - Sharpening angle: The sharpening angle is set by removing the cover (14) using the wing nut (8) and placing it on the angle indicators.
The position is defined by the incorporated recesses.
The angle markings show the sharpening angle.
The desired sharpening angle is set by bending the angle indicators.

6. Operation



Attention: Read the operating instructions first before using the system.

Please take your time to familiarize yourself with the device. The safe use of the grinder requires practice.



Tip: Use old saw chains to practice that are no longer suitable for use on chainsaws.



Preparation

Chainsaw

- Fix the chainsaw in such a way that it is securely fastened during the grinding process and that you can still pull the chain through with the chain brake released.
- Position the chainsaw at a height that it is about 50 cm below your shoulder height. In this way, ergonomic processing can be guaranteed.
- Check the chain tension to ensure that it corresponds to the manufacturer's specifications.
- Determine the size of the chain to be sharpened (chain pitch).
- Make sure that there are no easily flammable objects nearby and that components are not wetted with fuel.

Personal protective equipment

Put on personal protective equipment:

- Safety glasses
- Dust mask
- Work gloves

Schleiferl

- Check the device for damage and the condition of the sanding belt. If necessary, the sanding belt has to be replaced. You can find information on this in the section “Maintenance and testing”.



Attention: If cracks are visible on the sanding belt, it must be replaced immediately.

- Mount the correct grinding shaft (6) for the chain pitch to be sharpened in the grinder.
- Connect the cordless screwdriver to the drive shaft (11) of the grinder.
- Set the direction of rotation of the cordless screwdriver to “clockwise”.
- Check whether the sanding belt (7) runs in the middle of the sanding shaft (6) when idling. If necessary, readjust using the adjusting screw (9).

Sharpening the saw teeth

Handling

- The grinder is picked up with the right hand on the handle (1).
- The screwdriver is held with the left hand.

Applying the grinder to the saw tooth

- The grinder is to be guided into the saw tooth to be sharpened at a standstill. The grinding shaft (7) must be placed under the top of the saw tooth.
- Align the angular position of the grinder to the saw chain so that the respective angle indicator (15) is aligned parallel to the chain saw blade.

Sharpening the saw tooth

- Slowly increase the speed of the sanding belt using the cordless screwdriver.
- Press the grinder with your right hand and light pressure against the saw tooth.
- Slightly lift the grinder off the saw chain while sharpening to prevent damage to the saw chain drive links.

Note: Excessive contact pressure can

- anneal the saw tooth,
- negatively affect the tooth profile,
- worsen the sharpening result,
- cause increased abrasive belt wear.

Check the sharpening result

- Check whether the saw tooth has a cutting edge evenly over the entire width.
 - Check whether the angles of the saw tooth are shaped according to the saw chain manufacturer.
-

Adjust the depth limiter of the saw chain

- **Note:** After sharpening the saw teeth, the depth limiter of the saw chain must be set to the respective saw tooth. This **cannot** be done using the sander.
- **Attention:** Incorrectly machined depth gauges can
 - cause serious injuries,
 - considerably reduce the sawing performance of the chainsaw,
 - considerably increase the wear/consumption of the chainsaw and the cutting equipment,
 - seriously deteriorate the chain saw guidance.
- The “**depth limiter grinder**” from BaSt-Ing is a suitable tool for adjusting the depth limiter.



7.

Maintenance/testing

Please note the maintenance instructions!



The grinder must be subjected to a visual inspection for damage before each use.

Before commissioning and after each working day:

- Visual inspection for external damage.
- Check whether the wear protection of the return shaft (5) covers it completely.
- Checking the waves for freedom of movement.
- Check the sanding belt for cracks or damage.

After a working week:

- **Cleaning the sander.**

Clean the sander, especially the bearings and the sliding plate (item 2).

Clean the grinder from dirt, such as sanding dust. Non-corrosive brake and parts cleaners are permitted as cleaning agents, e.g. Liqui Moly Alll 3389.

- **Check for cracks or spindle play.**

- **Renew the wear protection of the return shaft.**

- **When replacing components, only original spare parts may be used.**

Replacement of spare parts is only permitted by trained personnel. Training documents and information on the correct replacement of spare parts are available from the manufacturer.

8. Malfunction and repair

Sanding belt change

When changing the sanding belt, proceed as follows:

- Remove coarse dirt from the sliding plate (2). Coarse dirt can slide under the sliding plate and cause the sliding plate to jam.
- Press the rear end of the sliding plate (2). The carrier tube (3) must be against a solid object.
- Keep the sliding plate (2) pressed and turn the wing nut (13) clockwise until the sliding plate (2) is fixed.
- Loosen the wing nut (8). You can then remove the cover (14).
- Pull the sanding shaft (6) out of the carrier tube - now the old sanding belt can be pulled off to the rear.
- Push the new sanding belt into the sanding machine from the rear of the support tube. Pay attention to the direction of rotation of the sanding belt!
- Make sure that the sanding belt is guided correctly over the shafts. The correct tape guide is engraved on the side of the carrier tube (3).
- Insert the grinding shaft (6).
- Loosen the screw (13).
- Mount the side cover (14) with the wing screwdriver (8).



Tip: If the drive shaft (11) does not turn the new sanding belt completely, simply apply additional pressure to the sanding belt with a finger over the sliding plate (29) until the sanding belt turns completely.

Change the grinding shaft

- Press the rear end of the sliding plate (2) so that the sanding belt tension is released.
- Keep the sliding plate pressed and tighten the wing nut (13).
- Loosen the wing nut (8). You can then remove the cover (14).
- Pull the grinding shaft (6) out of the carrier tube.
- Insert the appropriate grinding shaft (6).
- Loosen the screw (13), which tensions the sanding belt (7).
- Mount the cover (14).

Replacement of the wear protection of the return shaft

- Dismantle the sanding belt (7).
- Use a knife to cut the old adhesive tape residue from the return shaft (5).
- Take a suitable textile adhesive tape. We recommend the “adhesive tape for repairing forest tape measures”, available from BaSt-Ing GmbH or from specialist dealers.
- Cut 2–3 strips of the adhesive tape on the unwound length of the return shaft.
- Stick the adhesive tape along the shaft on the return shaft.
- Repeat the process 2–3 times to achieve longer-lasting wear protection.

9. **Render inoperative**

If the grinder is not needed for a long time, please store it as follows:

- Clean the grinder from dirt, such as sanding dust. Non-corrosive brake and parts cleaners are permitted as cleaning agents, e.g. Liqui Moly Alll 3389.
- Store the grinder in a dry place and in a temperature range of -15°C to $+35^{\circ}\text{C}$.
- Abrasive belts should be stored at $18-22^{\circ}\text{C}$ and 45–65 % relative humidity.
- Harmful influences from moisture, frost and large temperature fluctuations as well as mechanical damage should be avoided.
- Reserve sanding belts should be stored on a bar or hook with a diameter of at least 50 mm.

10. **Proper disposal**

Grinders, accessories and packaging should be recycled in an environmentally friendly manner.

Do not throw the grinder in the trash. The grinder consists of high quality materials, such as Steel (shafts, bearings; sheet metal, screw connections), aluminum (support tube & sliding plate), ABS plastic (drive roller).

There are no questionable hazardous substances installed. The built-in materials can be disposed of in a recycling center.

Dispose of the components separately according to their materials. If you have any questions about disposal, the BaSt-Ing team is at your disposal:

Email: info@bast-ing.de | Tel.: +49 (0)179/433 79 56

11. **Application advice**

Customer service answers your questions about repair and maintenance of your product as well as spare parts. Exploded drawings and information on spare parts will be made available to you on request:

Email: info@bast-ing.de | Tel.: +49 (0)179/433 79 56

12. Guarantee

For the „Schleiferl“ we guarantee the functionality and freedom from defects of the material for 12 months from the date of delivery. This does not extend to the consequences of normal wear and tear, overloading, improper handling or the installation of third-party spare parts.

Damage caused by material or manufacturer defects will be remedied free of charge through replacement delivery or repair.

13. Environmental aspects

The grinder is made of high quality materials such as aluminum and stainless steel. Use the grinder for as long as possible and repair the grinder if necessary to save resources.

14. EC Statement of Conformity

The manufacturer: **BaSt-Ing GmbH**
Weipertshausen 13
82541 Münsing/Germany
Phone: +49 (0)179/433 79 56

hereby declares that the following product:

Product name: **Schleiferl**

Built: **from 06/2019**

complies with all relevant provisions of the **Machinery Directive (2006/42/EC)**.

The following harmonised standards were applied:

EN ISO 12100 Safety of Machines – General Design Guidelines
Risk assessment and risk reduction



Weipertshausen, 29.06.2019