



Operating Instructions

53117

* PROFESSIONAL TOOLS



SPECIFICATIONS

Model	53117
Rated voltage:	220-240V/50/60Hz
Rated power:	710W
No load speed:	0-11000/min
Disc diameter:	100mm/115mm

General Safety Instructions for Electric Tools

This device is exclusively for private use! It is not fit for commercial use!

Warning: when working with electrical devices the following prevention and safety instructions are to be observed to avoid fires, electric shocks and physical injuries:

For safe working:

- Keep the working area in order!
- Disorder in the working area can give rise to dangers of accidents! Pay attention to the ambient conditions!
- Do not leave electric tools under the rain!
- Do not use these in humid or wet surroundings!
- Make sure that there is enough light! Make sure that the working area is visible at a glance!
- Do not use electric tools in areas subject to the risk of fires! Protect yourself against electric shocks!
- Avoid coming into contact with grounded parts (e.g. pipes, radiators, stoves, refrigerators)!
- In case of extreme application conditions (e.g. high humidity, presence of metal particles, etc.) the electrical safety of the device can be improved by connecting an isolation transformer or a fault current circuit breaker!
- Keep children away!
- Do not let other people touch the tool or the cable!
- Keep other people out of the working area! Make sure that the tool is stored safely!
- Unused electric tools are to be kept in a dry, high flying or closed place, out of the reach of children!
- Do not overload the electric tool! It works better and safer within the indicated capacity range! Use the right electric tool!
- Do not use weak tools or adapters for heavy jobs. Do not use tools for purposes or jobs for which these are not intended. For example, hand circular saws are not be used to cut trees or branches! Always wear suitable working cloths!
- Do not wear baggy cloths or jewellery! Risk of being caught by moving parts!
- When working outside, it is advisable to wear rubber gloves and skid-proof shoes!
- If you have long hair, wear a hairnet! Use protective goggles!
- Always wear a breathing mask during jobs producing dust! Connect the vacuum system (if available)!
- If devices for the connection of vacuum and collection systems are available, make sure that these are connected and used correctly!
- Do not tamper with the cable!
- Do not carry the tool by the cable and do not use it to pull the plug out of the socket!

- Protect the cable against heat sources, oil and sharp edges! Secure the tool!
- Use chucking devices or a vise to keep the tool still! The tool can thus be held in place more safely than by hand and the tool can be used with both hands!
- Avoid unusual body postures! Always stand firmly in place and keep your balance!
- Always keep the tool in good order!
- Follow the maintenance and tool change instructions!
- Check the plug and cable on a regular basis and have qualified technician change these in case of damage!
- Check the extension cable on a regular basis and replace it if damaged!
- Pull the plug out of the socket after use, before maintenance and when changing accessories such as saw blades, drills cutters, etc.! Do not leave protruding tool keys!
- Make sure before turning on the tool that the key or setting gauge is removed!
- Avoid the accidental starting of the tool!
- Never carry an electric tool connected to the power mains with your finger on the switch!
- Make sure that the switch is off when connecting to the mains! Extension cable outdoors: Use only certified and duly marked extension cables outdoors!
- Always be careful! pay attention to your work! Proceed carefully. Do not use the tool if you are not concentrated!
- Check the tool for damages!
- Before using the tool the next time check that the protection devices or slightly damaged parts are in good working conditions! Check whether the moving parts function correctly, that these are not jammed or whether any parts are damaged!
- All the parts to be correctly mounted and meet all the requirements for the proper functioning of the electric tool!
- Damaged protection devices and parts are to be repaired or changed by a qualified technician provided that the operating instructions do not specify otherwise!
- Damaged switches are to be replaced in a customer service shop! Do not use electric tools that cannot be switched on or off!

WARNING!

- For your own safety always use only the accessories and attachments specified in the operating instructions or recommended or specified by the tool manufacturer!
- The use of accessories and attachments other than those specified in the operating instructions can cause injuries!
- Always have your tool be repaired by certified technicians!
- This tool meets the relevant safety requirements!
- Repairs are to be carried out only by qualified technicians with original spare parts to avoid the risk of injuries to the user caused by improper repairs!

Hearing protection

- In case of a sound pressure greater than 85.0 dB(A) wear hearing protection to avoid damage to your hearing!

Special Safety Instructions

- Do not use the machine without the protective cover! Ensure that this is fitted correctly!
- Check whether the mounting flanges and the disk have been inserted correctly and are not damaged!
- Ensure that the speed of the machine is suitable for the accessories. Allow a newly mounted abrasive wheel to run without a load for at least thirty seconds! Please keep the safety instructions in a safe place!

- Please ensure that the voltage of the mains power supply corresponds to that stated on the type plate. The tool is equipped with a two –pole lead and plug!
- Only use a suitable extension cable when this is absolutely necessary! The use of an unsuitable extension cable carries with it the danger of fire or an electric shock! If an extension cable has to be used ensure that it is correctly wired and in good condition!
- Your machine is double insulated. This means that two completely independent types of insulation prevent you from coming into contact with live metal parts. This measure represents a high degree of protection against an electric shock.
- When working with this machine it is advisable to use ear protection!

Before initial Use

Mounting the Side Handle

During operation, keep one hand on the housing handle (5) and the other on the side handle (3). In order to mount the side handle, screw it into the screw hole of the gear box (4)

Correct Fitting of the Protective Device

Ensure that the protective cover (6) is fitted correctly and that the fixing screws have been tightened! Before tightening the fixing screws, turn the on and off switch (1) to the (0) position and remove the mains plug!

Grinding and Surface Processing

In order to grind surfaces you should use a coarse abrasive disk with a sunken centre. You can use abrasive disks with diameter of 125mm. The maximum thickness is 6mm.

Cutting Metal

In order to cut rods, tubes and metal parts you should use a cutting -off wheel. You can use wheels with diameter of 125mm. The maximum thickness in this case is 3mm.

Cutting Stone Material

When cutting stone material you should use a flat cutting off wheel. You can use wheels with diameter of 125mm. Always approach the job at the same angle at which you would like to cut. Maintain this angle during cutting and do not exert any side pressure on the wheel.

Inserting the Wheels/Disks

Please proceed as follows when inserting the wheel/disk:

1. Before mounting, remove the mains plug from the socket and move the on and off switch (1) to position (0)! Ensure that the protective device is correctly installed.
2. Place the internal flange (10) on the drive shaft (2). Ensure that it is in contact with the two flat areas.
3. Now place the abrasive disk on the drive shaft (2) and the internal flange (10). Ensure that it is correctly in place.
4. Now attach the external flange with the thread (9), ensuring that it is facing the right direction according to the type of disk/wheel used. In the case of abrasive disks, the flange (9) is inserted with the higher side pointing towards the disk. In the case of cutting off wheels, the flange (9) is inserted with the flat side pointing towards the wheel.
5. Depress and hold the lock button (7) so that cannot turn and then tighten the external flange (9) with the external flange spanner (8).

Abrasive Disks

- Ensure that the speed to which the machine is set is sufficient for the accessories chosen.
 - Use only abrasive disks with a diameter of 125 mm!
 - Before mounting the disk, remove the mains plug from the socket and push the on and off switch (1) to position (0)!
1. Place the internal flange (10) on to the drive shaft (2).
 2. Place the abrasive disk on the drive shaft (2) and ensure that it is correctly in place.
 3. Attach the external flange with the thread (9) and tighten it as described above with the external flange spanner (8).

NOTE: Expect a "rain of sparks" when the disk comes into contact with metal.

While grinding, always maintain the correct angle between the disk and the working surface of 15°. This produces ideal results and avoids overloads.

Overload

The motor of your right angle grinding machine may be damaged when overloaded. This results from excessive working pressure over a prolonged period. Therefore you should not try to accelerate your working speed by increasing pressure on your machine. The abrasive disks work more efficiently if only slight pressure is exerted on the grinding machine, thus avoiding a drop in the grinding speed.

Maintenance

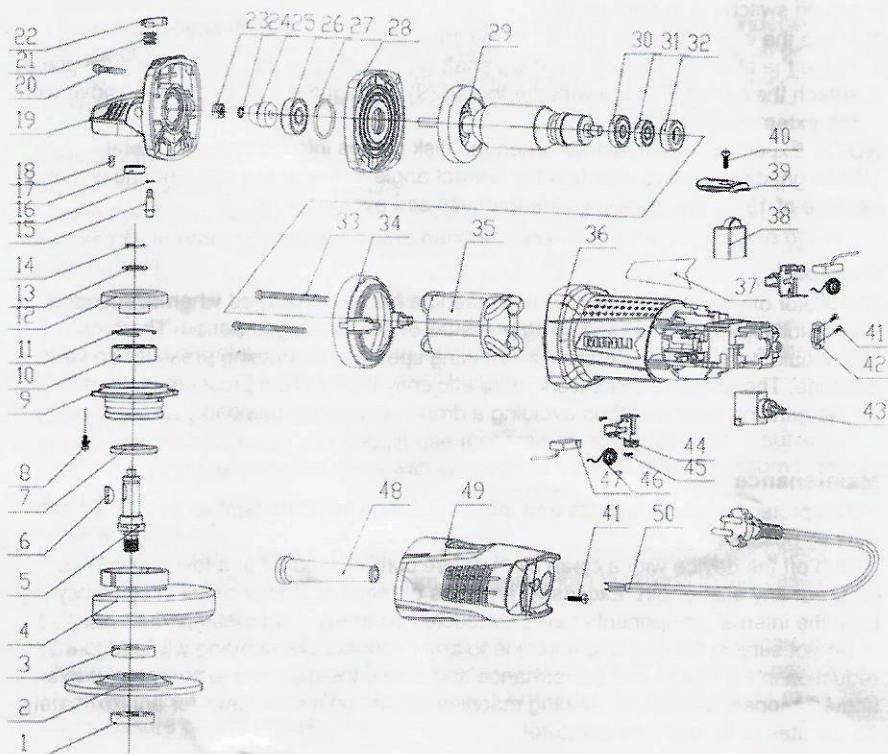
- The protective cover, air slits and motor housing should be kept as free of dirt and dust as possible.
- Rub off the device with a clean cloth or use compressed air at a low pressure to blow out any dust or dirt. Excessive amounts of metal dust may result in electricity from the internal components being conducted on to exposed metal parts!
- Do not subject the grinding machine to any overload! Overloading will lead to a reduction in the speed and performance and cause the machine to overheat! If this should happen, switch the grinding machine off and let it cool down for approximately 30 minutes or to room temperature!

NOTE: Turning off the grinding machine while it is being subjected to a load will reduce the working life of the operating switch!

Cleaning and Care

- Before cleaning the machine, remove the mains plug from the socket and turn the on and off switch (1) to position (0)!
- For cleaning purposes, only use a slightly damp but not wet cloth!
- Do not use any abrasive additives (petrol, turpentine etc) as these may damage the plastic housing!
- A mild soap is suitable for cleaning the machine!
- Ensure that no moisture is allowed to get inside the machine!
- After cleaning, wipe the machine with a dry cloth!

Explosive view



The explosion figure list

No.	Name	No.	Name
1	outer flange	26	bearing
2	grinding wheel	27	o-ring
3	inner flanger	28	center cover
4	wheel guard	29	armature
5	output shaft	30	insulation washer
6	woodruff key	31	bearing
7	dust proof cover	32	bearing sleeve
8	tapping screw	33	tapping screw
9	bearing box	34	baffle plate
10	bearing	35	stator
11	retaining ring	36	housing
12	spiral bevel gear	37	trade mark
13	wave washer	38	speed controller
14	retaining ring	39	speed controller cap
15	self-lock pin	40	tapping screw
16	o-ring	41	tapping screw
17	bearing	42	strain relief
18	shake-proof pin	43	switch
19	gear box	44	brush holder
20	tapping screw	45	tapping screw
21	compression spring	46	coil spring
22	self-lock cap	47	carbon brush
23	hex nut	48	cord guard
24	circlip	49	rear cover
25	spiral bevel gear	50	cable

