

## STRAIGHT GRINDER OPERATION INSTRUCTIONS



Read through carefully and understand these instructions before use.

## GENERAL SAFETY RULES

(For All Tools)

**⚠ WARNING! Read and understand all instructions.**

Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

### Work Area

**1.Keep work area clean and well lit.**

Cluttered areas and benches invite injuries.

**2.Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.**Power tools create sparks which may ignite the dust or fumes.

**3.Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

### Electrical Safety

**4.Power tools must be plugged into an outlet properly installed or grounded in accordance with all codes and ordinances. Never modify the plug in any way. Do not use any adaptor plugs with grounded (earthed) power tools.** The original plug and proper outlet may reduce the risk of electric shock.

**5.Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.

**6.Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

**7.Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts.** Replace damaged cords immediately. Damaged or entangled cords increase the risk of electric shock.

**8.When operating a power tool outside, use only extension cords intended for outdoors use.** These cords may reduce the risk of electric shock.

### Personal Safety

**9.Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.**

A moment of inattention while operating power tools may result in serious personal injury.

**10.Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

**11.Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.

**12.Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

**13.Do not overreach. Keep proper footing and balance at all times.**Proper footing and balance enables better control of the tool in unexpected situations.

**14.Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions. Ordinary eye or sun glasses are NOT eye protection.

**15.If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.**Use of dust collection can reduce dust-related hazards.

### Tool Use and Care

**16.Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.

**17.Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.

**18.Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.

**19.Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.

**20.Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.

**21.Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation.** If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.

**22.Use only accessories that are recommended by the manufacturer for your model.**

Accessories that may be suitable for one tool, may become hazardous when used on another tool.

## Service

**23.Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.

**24.When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of electric shock or injury.

## VOLTAGE WARNING:

Before connecting the tool to a power source (receptacle, outlet, etc.), be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that specified for the tool can result in **SERIOUS INJURY** to the user, as well as damage to the tool. If in doubt, **DO NOT PLUG IN THE TOOL**. Using a power source with voltage less than nameplate rating is harmful to the motor.

## SPECIFICATIONS

Rated Power Input	710W
Rated Speed	33000 r/min
Max. Grinding Wheel Diameter	Ø25mm
Max. Collet Size	6mm
Net Weight	1.49kg

※Due to the continuing program of research and development, the specifications herein are subject to change without prior notice.

## ADDITIONAL SAFETY RULES

- 1.Use only wheel points having a maximum operating speed at least as high as “No-load Speed” marked on the tool’s nameplate.
- 2.Check the wheel point carefully for cracks or damage before operation. Replace cracked or damaged wheel point immediately. Run the tool at no load for about a minute, holding tool away from others. If wheel is flawed, it will likely separate during this test.
- 3.Hold the tool firmly.
- 4.Keep hands away from rotating parts.
- 5.Make sure the wheel point is not contacting the workpiece before the switch is turned on.
- 6.Before using the tool on an actual workpiece, let it run for more than one minute. (When mounting a new wheel point, let it run for more than three minutes.) Watch for vibration or wobbling that could indicate poor installation or poorly balanced wheel point.

7.Watch out for flying sparks. Hold the tool so that sparks fly away from you and other persons or flammable materials.

8.Do not leave the tool running. Operate the tool only when hand-held.

9.Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.

10.Do not use water or grinding lubricant.

11.Do not use this tool as cutter.

12.Do not touch the workpiece immediately after operation, it may be extremely hot and could burn your skin.

13.**ALWAYS** wear proper apparel including long sleeve shirts, leather gloves and shop aprons to protect skin from contact with hot grindings.

14.Use of this tool to grind or sand some products, paints and wood could expose user to dust containing hazardous substances. Use appropriate respiratory protection.

## SAVE THESE INSTRUCTIONS.

**WARNING! MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.**

## MAINTENANCE AND INSPECTION

### CAUTION:

Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

### 1.Inspecting the mounting screws

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

### 2.Maintenance of the motor

The motor unit winding is the very “heart” of the power tool. Exercise due care to ensure the winding does not become damaged and /or wet with oil or water.

### 3.Inspecting and replacing the carbon brushes

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time.

※To maintain product **SAFETY** and **RELIABILITY**, repairs, any other maintenance or adjustment should be performed by authorized centers, always using original replacement parts.

## INSTRUCTIONS FOR OPERATION

### Installing or Removing the Wheel Point

#### CAUTION:

Always be sure that the tool is switched off and unplugged before installing or removing the wheel point.

Loosen the collet nut and insert the wheel point into the collet nut. Use the smaller wrench to hold the spindle and use the larger one to tighten the collet nut securely.

The wheel point should not be mounted more than 10 mm from the collet nut. Exceeding this distance could cause vibration or a broken shaft.

To remove the wheel point, follow the installation procedures in reverse.

### Switch Operation

#### CAUTION:

Before plugging in the tool, always check to see that the switch actuates properly and in the “OFF” position.

start the tool, move the switch lever to the “ON” position. To stop the tool, move the switch lever to the “OFF” position.

start the tool,slide the switch lever toward the “I(ON)” position. For continuous operation, press the front of the slide switch to lock it.

To stop the tool, press the rear of the slide switch, then slide it toward the “O(OFF)” position.

### Operation

Turn the tool on without the wheel point making any contact with the workpiece and wait until the wheel point attains full speed. Then apply the wheel point to the workpiece gently. To obtain a good finish, move the tool in the leftward direction slowly.

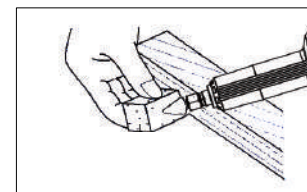
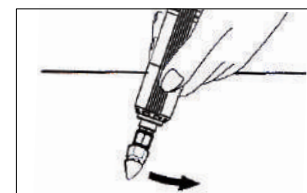
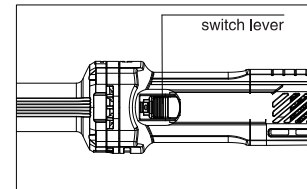
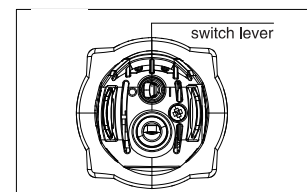
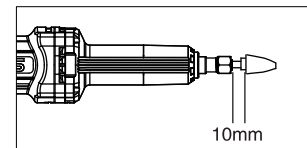
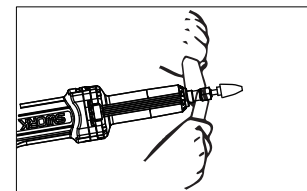
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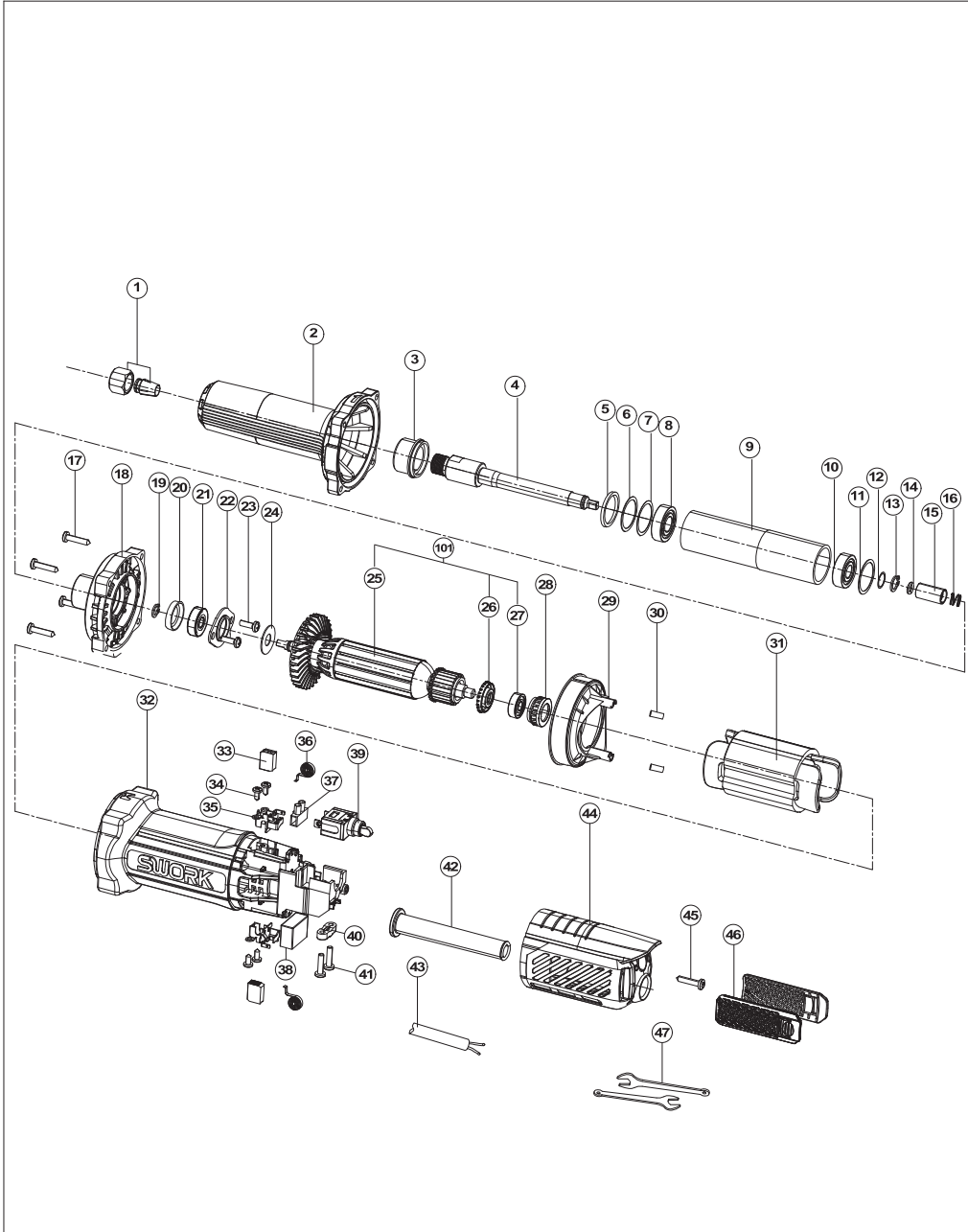
Apply light pressure on the tool.

Excessive pressure on the tool will only cause a poor finish and overloading of the motor.

### Dressing Wheel Point

When the wheel point becomes “loaded” with various bits and particles, you should dress the wheel point with dressing stone.





## EXPLANATION OF GENERAL VIEW

1	Collet and Nut Ass' y	34	Tapping Screw ST3.5 × 8
2	Barrel	35	Brush Holder
3	Retaining Ring	36	Coil Spring
4	Drive Spindle	37	TerminalBlock
5	Dust Seal	38	Capacitor
6	Flat Washer	39	Switch
7	Wave Washer	40	Strain Relief
8	Ball Bearing 6001 (NSK)	41	Tapping Screw ST4.2 × 14
9	Pipe Sleeve	42	Cord Guard
10	Ball Bearing 6000 (NMB)	43	Power Supply Cord
11	Wave Washer	44	Rear Cover
12	Wave Washer	45	Tapping Screw ST4.2 × 14
13	Outer Circlip	46	Dust Filter
14	O Ring	47	Wrench
15	Coupling	101	Armature Ass' y
16	Spring		
17	Tapping Screw ST4.2 × 30		
18	Inner Cover		
19	Inner Circlip		
20	Square Washer		
21	Ball Bearing 608 (NSK)		
22	Bearing Retainer		
23	Pan Head Screw M4 × 12		
24	Dust Seal		
25	Armature		
26	Dustproof Ring		
27	Ball Bearing 607 (NMB)		
28	Bearing Sleeve		
29	Baffle		
30	Rubber Pin		
31	Stator		
32	Motor Housing		
33	Carbon Brush Set		