

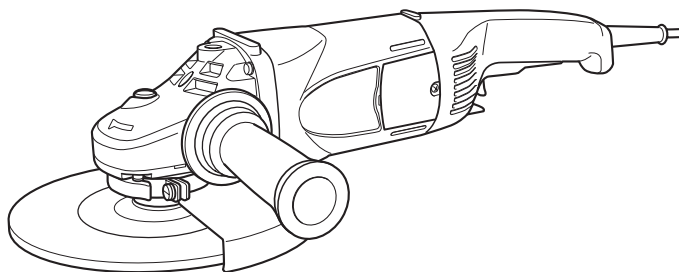
# **HIKOKI**

## **Disc Grinder**

**Model G 18SE3 • G 18SG2 • G 23SF2**

**G 23U2 • G 23SE2 • G 23UB2**

## **Handling instructions**



G23SE2

**NOTE:**

Before using this Electric Power Tool, carefully read through these HANDLING INSTRUCTIONS to ensure efficient, safe operation. It is recommended that these INSTRUCTIONS be kept readily available as an important reference when using this power tool.



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## GENERAL POWER TOOL SAFETY WARNINGS

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### WARNING

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

#### 1) Work area safety

- a) **Keep work area clean and well lit.**  
*Cluttered or dark areas invite accidents.*
- b) **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.*
- c) **Keep children and bystanders away while operating a power tool.**  
*Distractions can cause you to lose control.*

#### 2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.**  
*Unmodified plugs and matching outlets will reduce risk of electric shock.*
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.**  
*There is an increased risk of electric shock if your body is earthed or grounded.*
- c) **Do not expose power tools to rain or wet conditions.**  
*Water entering a power tool will increase the risk of electric shock.*
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.**  
*Damaged or entangled cords increase the risk of electric shock.*
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.**  
*Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.**  
*Use of an RCD reduces the risk of electric shock.*

#### 3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.**  
*A moment of inattention while operating power tools may result in serious personal injury.*
- b) **Use personal protective equipment. Always wear eye protection.**  
*Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.**

*Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.*

- d) **Remove any adjusting key or wrench before turning the power tool on.**  
*A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- e) **Do not overreach. Keep proper footing and balance at all times.**  
*This enables better control of the power tool in unexpected situations.*
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.**  
*Loose clothes, jewellery or long hair can be caught in moving parts.*
- g) **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.*

#### 4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.**  
*The correct power tool will do the job better and safer at the rate for which it was designed.*
- b) **Do not use the power tool if the switch does not turn it on and off.**  
*Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.**  
*Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.**
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation.**  
*If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.*
- f) **Keep cutting tools sharp and clean.**  
*Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.**  
*Use of the power tool for operations different from those intended could result in a hazardous situation.*

#### 5) Service

- a) **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.*

### PRECAUTION

Keep children and infirm persons away.

When not in use, tools should be stored out of reach of children and infirm persons.

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## SAFETY WARNINGS COMMON FOR GRINDING OR ABRASIVE CUTTING-OFF OPERATIONS

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- a) **This power tool is intended to function as a grinder or cut-off tool. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.**

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

- b) **Operations such as sanding, wire brushing or polishing are not recommended to be performed with this power tool.**

*Operations for which the power tool was not designed may create a hazard and cause personal injury.*

- c) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.**

*Just because the accessory can be attached to your power tool, it does not assure safe operation.*

- d) **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.**

*Accessories running faster than their rated speed can break and fly apart.*

- e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.**

*Incorrectly sized accessories cannot be adequately guarded or controlled.*

- f) **The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.**

*Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.*

- g) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute.**

*Damaged accessories will normally break apart during this test time.*

- h) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.**

*The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.*

- i) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.**

*Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.*

- j) **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.**

*Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.*

- k) **Position the cord clear of the spinning accessory.**

*If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.*

- l) **Never lay the power tool down until the accessory has come to a complete stop.**

*The spinning accessory may grab the surface and pull the power tool out of your control.*

- m) **Do not run the power tool while carrying it at your side.**

*Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.*

- n) **Regularly clean the power tool's air vents.**

*The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.*

- o) **Do not operate the power tool near flammable materials.**

*Sparks could ignite these materials.*

- p) **Do not use accessories that require liquid coolants.**

*Using water or other liquid coolants may result in electrocution or shock.*

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## KICKBACK AND RELATED WARNINGS

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*Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.*

*For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.*

*Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.*

- a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.**

*The operator can control torque reactions or kickback forces, if proper precautions are taken.*

- b) **Never place your hand near the rotating accessory. Accessory may kickback over your hand.**

- c) **Do not position your body in the area where power tool will move if kickback occurs.**

*Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.*

- d) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.**  
*Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.*
- e) **Do not attach a saw chain woodcarving blade or toothed saw blade.**  
*Such blades create frequent kickback and loss of control.*

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### SAFETY WARNINGS SPECIFIC FOR GRINDING AND ABRASIVE CUTTING-OFF OPERATIONS

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- a) **Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel.**  
*Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.*
- b) **The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.**  
*The guard helps to protect operator from broken wheel fragments and accidental contact with wheel.*
- c) **Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel.**  
*Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.*
- d) **Always use undamaged wheel flanges that are of correct size and shape for your selected wheel.**  
*Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. Flanges for cut-off wheels may be different from grinding wheel flanges.*
- e) **Do not use worn down wheels from larger power tools.**  
*Wheel intended for larger power tool is not suitable for the higher speed of a smaller tool and may burst.*

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### ADDITIONAL SAFETY WARNINGS SPECIFIC FOR ABRASIVE CUTTING-OFF OPERATIONS

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- a) **Do not “jam” the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.**  
*Overstressing the wheel increases the loading and susceptibility to twisting or blinding of the wheel in the cut and the possibility of kickback or wheel breakage.*
- b) **Do not position your body in line with and behind the rotating wheel.**  
*When the wheel, at the point of operation, is moving away from your body, the possible kickback may propel the spinning wheel and the power tool directly at you.*

- c) **When wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.**  
*Investigate and take corrective action to eliminate the cause of wheel binding.*
- d) **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully reenter the cut.**  
*The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.*
- e) **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.**  
*Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.*
- f) **Use extra caution when making a “pocket cut” into existing walls or other blind areas.**  
*The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.*

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### PRECAUTIONS ON USING DISC GRINDER

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1. Never operate these power tools without Wheel Guards.
2. Check that speed marked on the wheel is equal to or greater than the rated speed of the grinder. Use only depressed center wheels rated at 80m/s or more.
3. Ensure that the wheel dimensions are compatible with the grinder and that the wheel fits the spindle.
4. Abrasive wheels shall be stored and handled with care in accordance with manufacturer’s instructions.
5. Inspect the depressed center wheel before use, do not use chipped, cracked or otherwise defective products.
6. Always hold the body handle and side handle of the power tool firmly. Otherwise the counterforce produced may result in inaccurate and even dangerous operation.
7. Do not use cutting-off wheels for side grinding.
8. Do not use of separate reducing bushings or adapters to adapt large hole abrasive wheels.
9. The wheel continues to rotate after the tool is switched off.

## SPECIFICATIONS

Model	G18SE3	G18SG2	G23SF2	G23U2	G23SE2	G23UB2
Voltage (by areas)*1	(110V, 220V, 230V, 240V) ~					
Input*1	2300 W	2500 W	2000 W		2400 W, 2500 W	
No-load speed	8500 min <sup>-1</sup>		6600 min <sup>-1</sup>			
Wheel	Outer dia.	180 mm		230 mm		
	Inner dia.	22 mm				
	Peripheral speed	80 m/s				
Weight*2	5.0 kg		4.3 kg		5.0 kg	
Starting current limiter*3	No		No	Yes	No	Yes

\*1 Be sure to check the nameplate on product as it is subject to change by areas.

\*2 Weight: Only main body

\*3 The starting current limiter produces the starting current to such an extent that a fuse (16A, slow-blow) is not tripped.

## STANDARD ACCESSORIES

- (1) Wrench ..... 1  
 (2) Side handle ..... 1  
 Depressed center wheels are not provided as standard accessories.

Standard accessories are subject to change without notice.

## APPLICATIONS

- Removal of casting fin and finishing of various types of steel, bronze and aluminum materials and castings.
- Grinding of welded sections or sections cut by means of a cutting torch.
- Grinding of synthetic resins, slate, brick, marble, etc.
- Cutting of synthetic concrete, stone, brick, marble and similar materials.

## PRIOR TO OPERATION

### 1. Power source

Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.

### 2. Power switch

Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.

### 3. Extension cord

When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.

### 4. Fitting and adjusting the wheel guard

The wheel guard is a protective device to prevent injury should the depressed center wheel shatter during operation. Ensure that the guard is properly fitted and fastened before commencing grinding operation.

[Adjusting the wheel guard, For G23SF2, G23U2 only]

- By slightly loosening the setting screw, the wheel guard can be turned and set at any desired angle for maximum operational effectiveness.
- Ensure that the setting screw is thoroughly tightened after adjusting the wheel guard.

[Installing and adjusting the wheel guard, For G18SE3, G18SG2, G23SE2, G23UB2 only]

- Open the lever and insert the locating pin of wheel guard, bringing it into line with the across flats of packing ground.
- Then, turn the wheel guard to a desired position (for use).
- Close the lever and fix it. If and when required, carry out adjustments by tightening or loosening the screw.
- If the lever does not move smoothly, apply some lubricating oil to the sliding section between the set piece and the lever.
- Fasten the wheel guard at the position where the across flats of the wheel guard positioning pin and packing ground are aligned (the position where the wheel guard is inserted), but do not use it.

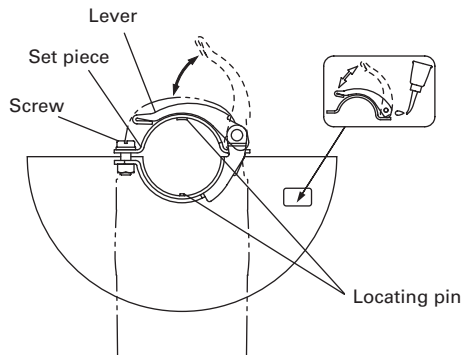


Fig. 1

5. Ensure that the depressed center wheel to be utilized is the correct type and free of cracks or surface defects. Also ensure that the depressed center wheel is properly mounted and the wheel nut is securely tightened, refer to the section on "Depressed Center Wheel Assembly".
6. **Conducting a trial run**  
Ensure that the abrasive products is correctly mounted and tightened before use and run the tool at no-load for 30 seconds in a safe position, stop immediately if there is considerable vibration or if other defects are detected.  
If this condition occurs, check the machine to determine the cause.
7. **Confirm the spindle lock mechanism**  
Confirm that the spindle lock is disengaged by pushing push button two or three times before switching the power tool on (See Fig. 3).
8. **Fixing the side handle**  
Screw the side handle into the gear cover.
9. **RCD**  
The use of a residual current device with a rated residual current of 30mA or less at all times is recommended.

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## PRACTICAL GRINDER APPLICATION

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### 1. Pressure

To prolong the life of the machine and ensure a first class finish, it is important that the machine should not be overloaded by applying too much pressure. In most applications, the weight of the machine alone is sufficient for effective grinding. Too much pressure will result in reduced rotational speed, inferior surface finish, and overloading which could reduce the life of the machine.

### 2. Grinding angle

Do not apply the entire surface of the depressed center wheel to the material to be ground. As shown in Fig. 2, the machine should be held at an angle of 15° – 30° so that the external edge of the depressed center wheel contacts the material at an optimum angle.

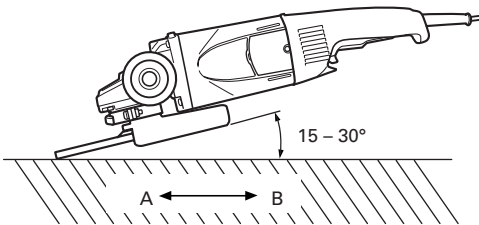


Fig. 2

3. To prevent a new depressed center wheel from digging into the workpiece, initial grinding should be performed by drawing the grinder across the workpiece toward the operator (Fig. 2 direction B). Once the leading edge of the depressed center wheel is properly abraded, grinding may be conducted in either direction.

### 4. Switch operation

Switch ON: Push the locking button forward and then press the switch lever.

\* For continuous use, press the switch lever. The switch lever is locked by pushing the locking button forward once again.  
(\*Subject to change depending on area.)

Switch OFF: Press and release the switch lever.

### 5. Precautions immediately after finishing operation

After switching off the machine, do not put it down until the depressed center wheel has come to a complete stop. Apart from avoiding serious accidents, this precaution will reduce the amount of dust and swarf sucked into the machine.

#### CAUTION:

- Check that the work piece is properly supported.
- Ensure that ventilation openings are kept clear when working in dusty conditions.  
If it should become necessary to clear dust, first disconnect the tool from the mains supply (use non-metallic objects) and avoid damaging internal parts.
- Ensure that sparks resulting from use do not create a hazard e.g. do not hit persons, or ignite flammable substances.
- Always use protective safety glasses and hearing protectors, use other personal protective equipment such as gloves, apron and helmet when necessary.
- Always use eye and ear protection.  
Other personal protective equipment such as dust mask, gloves, helmet and apron should be worn when necessary.  
If in doubt, wear the protective equipment.
- When the machine is not use, the power source should be disconnected.

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## ASSEMBLING AND DISASSEMBLING THE DEPRESSED CENTER WHEEL AND OTHER TOOLS

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#### CAUTION:

Be sure to switch OFF and disconnect the attachment plug from the receptacle to avoid a serious accident.

### 1. Assembling (Fig. 3)

- (1) Turn the machine upside down so that the spindle is facing upward.
- (2) Mount the wheel washer onto the spindle.
- (3) Fit the protruding part of the depressed center wheel or cutting wheel or diamond wheel onto the wheel washer.
- (4) Screw the wheel nut onto the spindle.  
(For diamond wheel assembling, use the wheel nut with the convex side against the diamond wheel.)
- (5) Insert the push button to prevent rotation of the spindle, and tighten the wheel nut with the accessory wrench, as shown in Fig. 3.

### 2. Disassembling

Follow the above procedures in reverse.

#### CAUTION:

- Confirm that the depressed center wheel is mounted firmly.
- Confirm that the push button is disengaged by pushing push button two or three times before switching the power tool on.

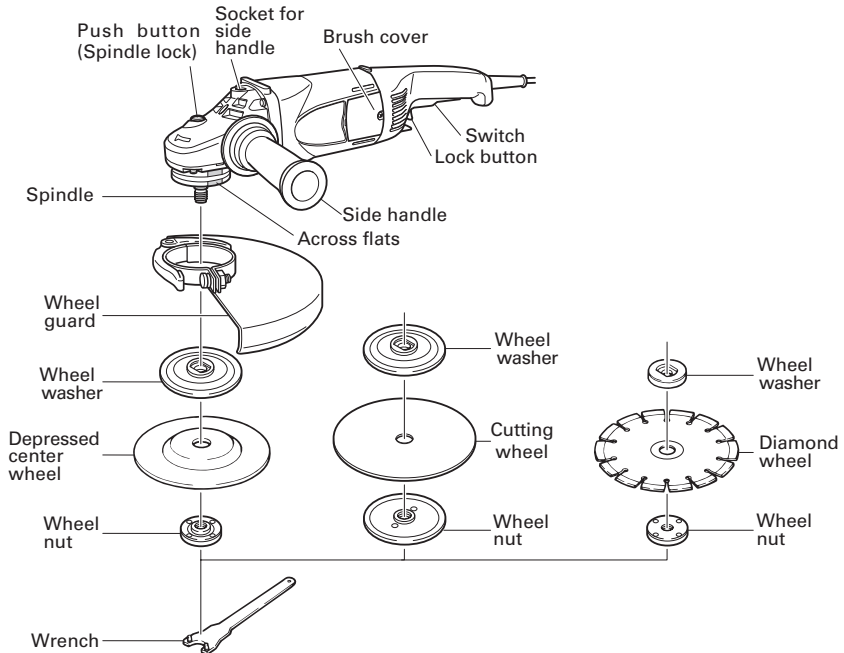


Fig. 3

## MAINTENANCE AND INSPECTION

### 1. Inspecting the depressed center wheel

Ensure that the depressed center wheel is free of cracks and surface defects.

### 2. 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.

### 3. Inspecting the carbon brushes

For your continued safety and electrical shock protection, carbon brush inspection and replacement on this tool should ONLY be performed by a HiKOKI Authorized Service Center.

### 4. Replacing supply cord

If the supply cord of Tool is damaged, the Tool must be returned to HiKOKI Authorized Service Center for the cord to be replaced.

### 5. 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.

### 6. Service parts list

- A: Item No.
- B: Code No.
- C: No. Used
- D: Remarks

## CAUTION:

Repair, modification and inspection of HiKOKI Power Tools must be carried out by an HiKOKI Authorized Service Center.

This Parts List will be helpful if presented with the tool to the HiKOKI Authorized Service Center when requesting repair or other maintenance.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

## MODIFICATIONS:

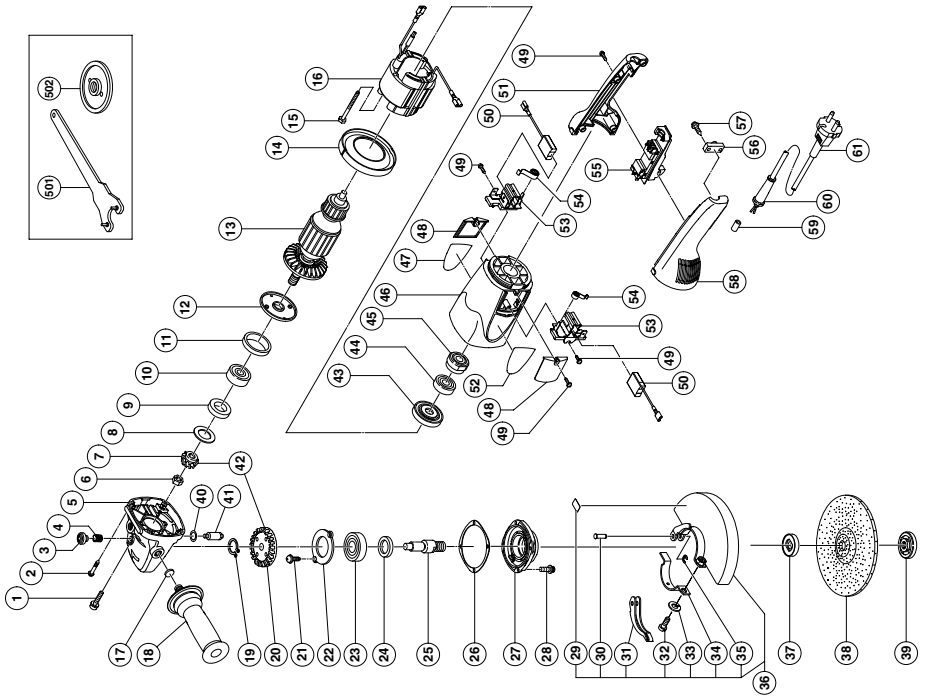
HiKOKI Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts (i.e. code numbers and/or design) may be changed without prior notice.

## NOTE:

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

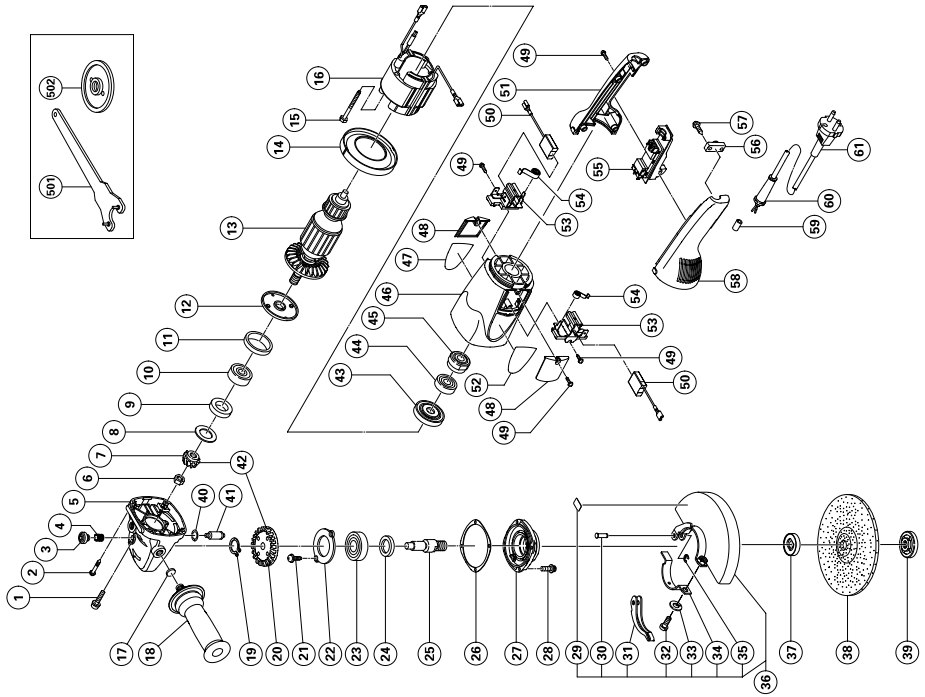
# G18SE3



A	B	C	D
1	315-636	2	M5x14
2	301-654	4	D5x35
3	306-888	1	
4	320-219	1	"3, 4, 17, 40, 41"
5	320-217	1	
6	320-226	1	M10
7	320-243	1	
8	320-221	1	
9	320-222	1	
10	630-1DD	1	6301DDCMPS2L
11	994-208	1	
12	320-220	1	
13	360-594U	1	"1 10V-120V" "9, 10, 43, 44"
13	360-594E	1	220V-230V
13	360-594F	1	240V
14	320-215	1	
15	984-271	2	D5x75
16	340-546C	1	110V-120V
16	340-546E	1	220V-230V
16	340-546F	1	240V
17	937-033	1	
18	321-542	1	
19	939-542	1	
20	320-242	1	
21	949-236	2	M5x10
22	320-229	1	
23	630-2DD	1	6302DDCMPS2L
24	990-852	1	
25	320-234	1	
26	320-228	1	
27	320-227	1	
28	994-192	4	M5x16
29	311-492	1	
30	321-545	1	
31	321-545	1	
32	306-887	1	M8x22
33	949-457	1	M8
34	321-544	1	
35	673-489	1	
36	321-543	1	"29-35"
37	937-908Z	1	
38	316-824	1	180MM A24R
39	937-909Z	1	
40	320-218	1	
41	306-890	1	"7, 20"
42	320-241	1	
43	320-216	1	
44	600-0VV	1	6000VVCMP2L
45	321-536	1	
46	321-535	1	"45"
47	---	1	
48	320-232	2	
49	305-812	8	D4x16
50	999-061	2	
51	320-231	1	
52	---	1	
53	320-233	2	
54	320-245	2	
55	320-238	1	
56	960-266	1	
57	984-750	2	D4x16
58	320-230	1	
59	981-373	2	
60	958-049	1	D8.2
61	500-408Z	1	
501	937-913Z	1	
502	937-917Z	1	



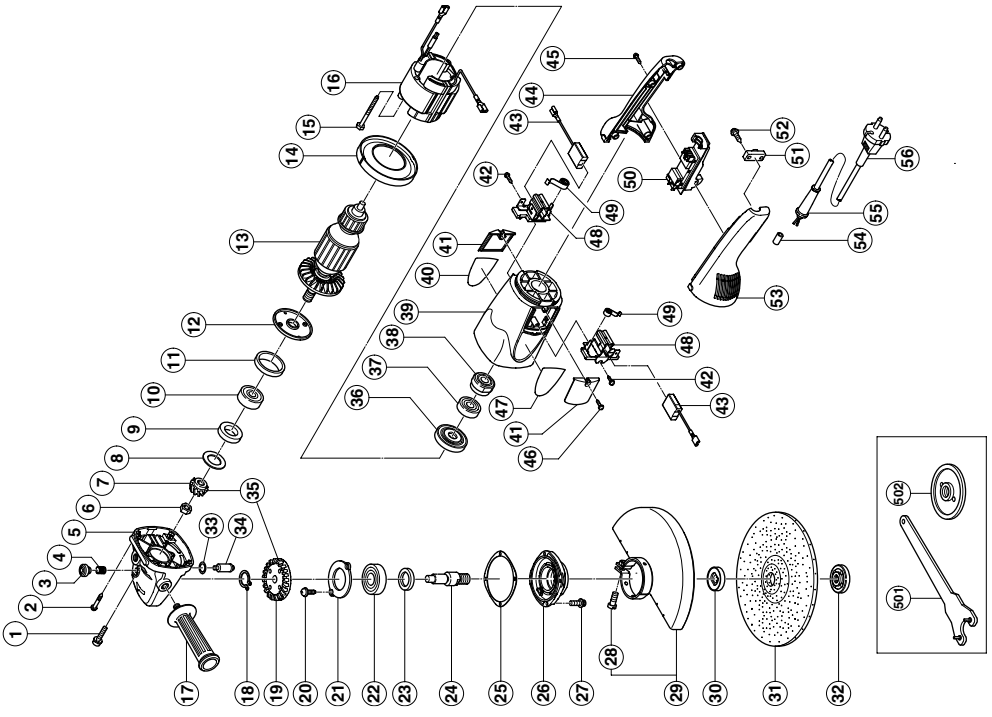
# G18SG2



A	B	C	D
1	315-636	2	M5x14
2	301-654	4	D5x35
3	306-888	1	
4	320-219	1	
5	320-217	1	"3, 4, 17, 40, 41"
6	320-226	1	M10
7	320-243	1	
8	320-221	1	
9	320-222	1	
10	630-1DD	1	6301DDCMPS2L
11	994-208	1	
12	320-220	1	
13	360-594E	1	220V-230V
14	320-215	1	
15	984-271	2	D5x75
16	340-546E	1	220V-230V
17	937-033	1	
18	321-542	1	
19	939-542	1	
20	320-242	1	
21	949-236	2	M5x10
22	320-229	1	
23	630-2DD	1	6302DDCMPS2L
24	990-852	1	
25	320-234	1	
26	320-228	1	
27	320-227	1	
28	994-192	4	M5x16
29	311-492	1	
30	321-546	1	
31	321-545	1	
32	306-887	1	M8x22
33	949-457	1	M8
34	321-544	1	
35	673-489	1	
36	321-543	1	"29-35"
37	937-907Z	1	"NZL"
37	937-908Z	1	

A	B	C	D
38	316-824	1	180MM A24R "NZL"
39	937-909Z	1	
40	320-218	1	
41	306-890	1	
42	320-241	1	"7, 20"
43	320-216	1	
44	600-0VV	1	6000VVCMP2L
45	321-536	1	
46	321-535	1	"45"
47	---	1	
48	320-232	2	
49	305-812	8	D4x16
50	999-061	1	
50	999-089	1	
51	320-231	1	
52	---	1	
53	320-233	2	
54	320-245	2	
55	320-238	1	
55	320-239	1	"ESP, AUT"
56	960-266	1	
57	984-750	2	D4x16
58	320-230	1	
59	981-373	2	
60	1 940-778	1	D10.7
60	2 958-049	1	D8.2
61	---	1	
501	937-913Z	1	"NZL"
502	937-917Z	1	

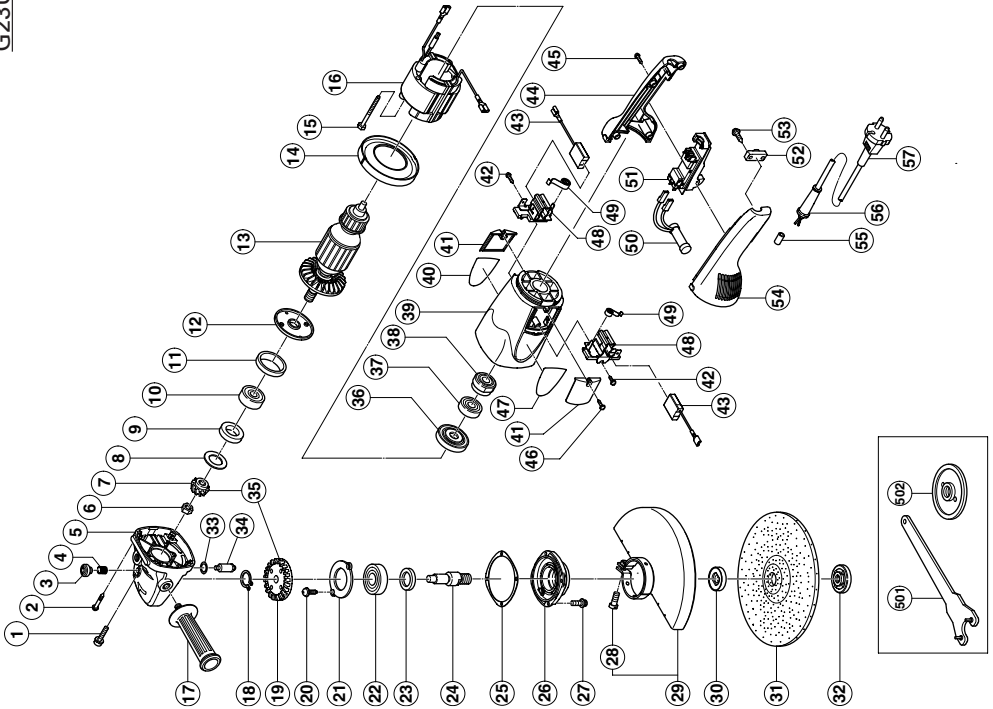
# G23SF2



A	B	C	D
1	315-636	2	M5x14
2	301-654	4	D5x35
3	306-888	1	
4	320-219	1	
5	320-217	1	"3, 4, 33, 34"
6	320-226	1	M10
7	320-225	1	
8	320-221	1	
9	320-222	1	
10	630-1DD	1	6301DDUCMPS2S
11	994-208	1	
12	320-220	1	
13	360-558E	1	220V-240V
14	320-215	1	
15	961-501	2	D5x60
16	340-501E	1	220V-230V
16	340-501F	1	240V
17	937-981	1	
18	939-542	1	
19	320-224	1	
20	949-236	2	M5x10
21	320-229	1	
22	630-2DD	1	6302DDUCMPS2S
23	990-852	1	
24	320-234	1	
25	320-228	1	
26	320-227	1	
27	994-192	4	M5x16
28	306-887	1	M8x22
29	306-120	1	"28"
30	937-908Z	1	
31	316-825	1	230MM A24R
32	937-909Z	1	M14x2
33	320-218	1	
34	306-890	1	
35	320-223	1	
36	320-216	1	"7, 19"
37	600-0VV	1	6000VVCMP2L
38	320-244	1	

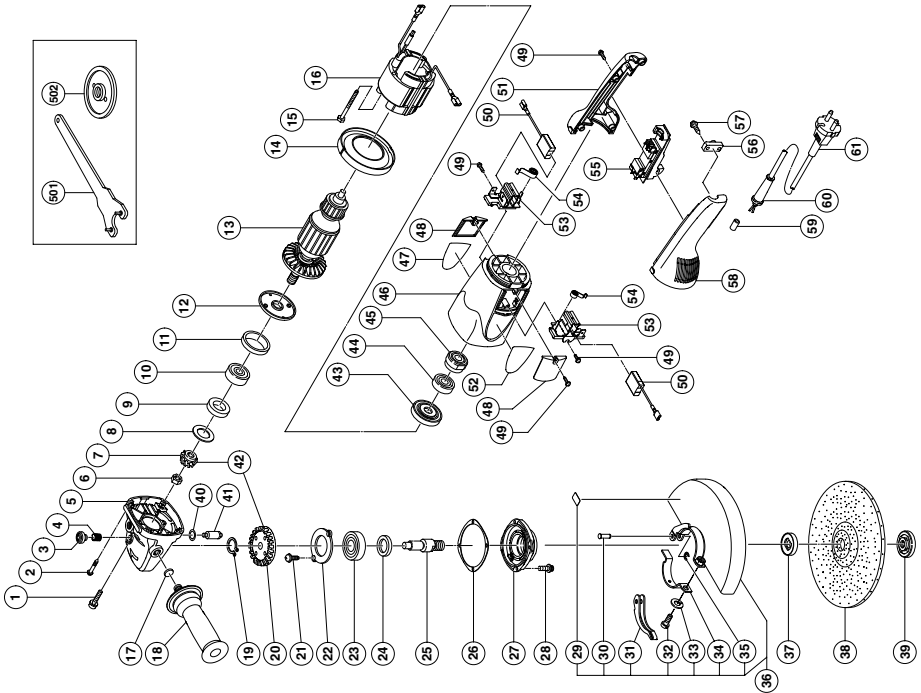
A	B	C	D
39	320-214	1	"38"
40	---	1	
41	320-232	2	
42	305-812	2	D4x16
43	999-061	1	
43	999-089	1	
44	320-231	1	
45	305-812	4	D4x16
46	305-812	2	D4x16
47	---	1	
48	320-233	2	
49	320-245	2	
50	320-238	1	
51	960-266	1	
52	984-750	2	D4x16
53	320-230	1	
54	981-373	2	
55	958-049	1	D8.2
56	500-439Z	1	
501	937-913Z	1	
502	937-917Z	1	

G23U2



A	B	C	D
1	315-636	2	M5x14
2	301-654	4	D5x35
3	306-888	1	
4	320-219	1	
5	320-217	1	"3, 4, 33, 34"
6	320-226	1	M10
7	320-225	1	
8	320-221	1	
9	320-222	1	
10	630-1DD	1	6301DDUCMPS2S
11	994-208	1	
12	320-220	1	
13	360-558E	1	220V-240V
14	320-215	1	
15	961-501	2	D5x60
16	340-501E	1	220V-230V
17	340-501F	1	240V
18	937-981	1	
19	939-542	1	
20	949-236	2	M5x10
21	320-229	1	
22	630-2DD	1	6302DDUCMPS2S
23	990-852	1	
24	320-234	1	
25	320-228	1	
26	320-227	1	M5x16
27	994-192	4	M8x22
28	306-887	1	"28"
29	306-120	1	
30	937-908Z	1	230MM A24R
31	316-825	1	M14x2
32	937-909Z	1	
33	320-218	1	
34	306-890	1	
35	320-223	1	"7, 19"
36	320-216	1	
37	600-0VV	1	6000VCMPS2L
38	320-244	1	
39	320-214	1	"38"
40	---	1	
41	320-232	2	
42	305-812	2	D4x16
43	1	999-061	1
43	2	999-089	1
44	320-231	1	
45	305-812	4	D4x16
46	305-812	2	D4x16
47	---	1	
48	320-233	2	
49	320-245	2	
50	320-236	1	
51	320-371	1	
52	960-266	1	
53	984-750	2	D4x16
54	320-230	1	
55	981-373	2	
56	958-049	1	D8.2
57	500-439Z	1	
501	937-913Z	1	
502	937-917Z	1	

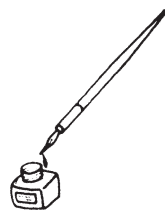
**G23SE2**

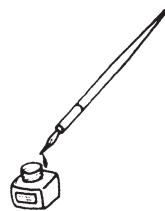


A	B	C	D	A	B	C	D
1	315-636	2	M5x14	39	937-909Z	1	
2	301-654	4	D5x35	40	320-218	1	
3	306-888	1		41	306-890	1	
4	320-219	1		42	320-223	1	"7, 20"
5	320-217	1	"3, 4, 17, 40, 41"	43	320-216	1	6000VVCMP2L
6	320-226	1	M10	44	600-0VV	1	"45"
7	320-225	1		45	321-536	1	
8	320-221	1		46	321-535	1	
9	320-222	1		47	---	2	
10	630-1DD	1	6301DDCMP2L	48	320-232	2	D4x16
11	994-208	1		49	305-812	8	
12	320-220	1		50	999-061	2	
13	360-594E	1	220V-230V	51	320-231	1	
13	360-594F	1	240V	52	---	1	
14	320-215	1		53	320-233	2	
15	984-271	2	D5x75	54	320-245	2	
16	340-546E	1	220V-230V	55	320-238	1	
16	340-546F	1	240V	56	960-266	1	D4x16
17	937-033	1		57	984-750	2	
18	321-542	1		58	320-230	1	
19	939-542	1		59	981-373	2	D8.2
20	320-224	1		60	958-049	1	
21	949-236	2		61	500-408Z	1	
22	320-229	1		501	937-913Z	1	
23	630-2DD	1	6302DDCMP2L	502	937-917Z	1	
24	990-852	1					
25	320-234	1					
26	320-228	1					
27	320-227	1					
28	994-192	4	M5x16				
29	311-492	1					
30	321-546	1					
31	321-545	1					
32	306-887	1	M8x22				
33	949-457	1	M8				
34	321-544	1					
35	673-489	1					
36	321-547	1	"29-35"				
37	937-908Z	1	230MM A24R				
38	316-825	1					

# G23UB2

A	B	C	D
1	315-636	2	M5x14
2	301-654	4	D5x35
3	306-888	1	
4	320-219	1	
5	320-217	1	"3, 4, 17, 40, 41"
6	320-226	1	M10
7	320-225	1	
8	320-221	1	
9	320-222	1	
10	630-1DD	1	6301DDCMPS2L
11	994-208	1	
12	320-220	1	
13	360-594U	1	"110V-120V"
13	360-594E	1	"9, 10, 43, 44"
13	360-594F	1	220V-230V
14	320-215	1	240V
15	984-271	2	D5x75
16	340-546C	1	110V-120V
16	340-546E	1	220V-230V
16	340-546F	1	240V
17	937-033	1	
18	321-542	1	
19	939-542	1	
20	320-224	1	
21	949-236	2	
22	320-229	1	
23	630-2DD	1	M5x10
24	990-852	1	6302DDCMPS2L
25	320-234	1	
26	320-228	1	
27	320-227	1	
28	994-192	4	M5x16
29	311-492	1	
30	321-546	1	
31	321-545	1	
32	306-887	1	M8x22
33	949-457	1	M8
34	321-544	1	
35	673-489	1	
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