USER MANUAL

DG250-II Floor Grinder

Important!!

Before operating the machine, please read this manual, and retain it for future reference.

Contents

This machine is designed to operate with the wheels in contact with the floor at all times.

Do not operate with the wheels off the floor.

Safety Precautions

The Floor Grinder has been designed to minimize noise and vibration levels and to Provide maximum operator safety. However, incorrect use of the grinder may cause serious injury and therefore the following precautions must be taken:

1. Read and understand the instructions on the machine. Different models may have different parts and controls.
2. Equipment should only be operated by trained personnel, in good physical condition and mental health (not fatigued). The operator and maintenance personnel must physically be able to handle the bulk weight and power of this machine.
3. This is a one person machine. Maintain a safe operating distance to other personnel. Remember 'one machine, one operator'.
4. This equipment is intended for commercial use.
5. For the operators' safety and the safety of others, always keep all guards and shrouds in place.
6. Never start or run machine when unattended.
7. This machine is intended for use on floor surface only.
8. Never start or run machine with handle folded or when disk(s) are not in contact with the surface.
9. Do not lend or rent machine without the operating instructions for the machine (and the engine, if applicable).
10. Wear clothing suitable for the job and for the work place including, safety shoes, hard hat, hearing protection, non-fogging vented safety goggles, and dust mask suitable for dust.
11. Keep body part or any loose clothing away from moving parts. Failure to comply could result in bodily injury.
12. Do not modify machine in any way. Only use genuine DG250-II parts and accessories.

13. Repairs should be performed by qualified persons only.
14. Ensure parts have stopped moving and disconnect power or spark plug when servicing or changing wheels or accessories.
15. Never operate machine in rain or heavy moisture.
16. Do not operate DG250-II with any covers or doors removed or open.
17. The DG250-II can produce sound pressure level greater than 85db. The operator.
18. Must wear approved safety ear protection.
19. Do not allow the supply cord to come in contact with the grinding wheel/head or other moving parts of this machine.
20. Do not use the grinder for longer than prescribed in your local environmental working regulations, as the noise load from extensive daily use may result in hearing defects.
21. Do not modify the grinder in any manner, or use a machine that has been modified by anyone other than the manufacturer or authorized dealer.
22. Do not add weight to the machine to make the grinder work harder. Instead reduce the number of segments on the grinding plate to increase performance.
23. Be sure that re-tipped and new grinding plates are properly balanced.
24. Do not run the grinder with grinding head raised any higher than necessary, i.e tipped back on handle.
25. Always be sure that folding handle latch is secure and has not vibrated loose after use.
26. When grinding, the machine is exposed to high vibration. Occasionally check machine for bolts/nuts which may have vibrated loose.
27. Do not allow water or cotton to enter the interior of the motor.

Introduction & description

- This manual is intended to provide operation and service information necessary for the safe and efficient use of the Floor Grinder.
- Operating or servicing the unit other than in accordance with the instructions given may subject the machine to conditions beyond its capability, which may result in machine failure or personal injury.

IMPORTANT

Read the entire operating manual carefully before attempting to use the floor grinder. Special attention should be paid to the section entitled 'Safety Precautions'.

- The Floor Grinder is a sturdy, reliable and easy to use machine.
- The Floor Grinder is fitted with 2.2kW single phase motor. This motor offers a direct drive to the grinding plate with the incorporation of a flexible coupling between the motor and the plate.
- The shroud system is unique in design, automatically adjusting to suit segment height and floor angle. This shroud system, when used in conjunction with an appropriate industrial vacuum unit, eliminates dust loss during grinding. The shroud has 2 removable sections to enable the operator to grind close up to the wall etc. Please note that dust loss is possible when this section is removed.
- The floor grinder comes complete with a water connection for wet grinding should this be required. This incorporates a ball valve allowing the operator to regulate the water supply to obtain the best grinding results.
- The floor grinder has a foldable handle which enables it to be easily transported in the trunk of most small vehicles. The rear wheels can also be extended outward should the operator want more stability from the grinder. This requires the use of a 10mm wrench. The operator can also raise or lower the height of the handle to maximize their comfort when using the grinder. And the new designed lifter system makes operator handy to use.

Technical data

Motor HP	**3hp**
Motor KW Rating	2.2kw
Motor RPM	1410rpm
Unit weight	67KG
Plate type	Standard 250mm plate or Cub Shoe
Plate Bolt Types	M12x25 Countersunk socket head
Main Construction	Powder Coated Steel

Ensure all re-tipped and new grinding plates are properly balanced.

Operation Instructions

The floor grinder is designed to be used either wet or dry. If the floor is being ground dry, ensure a suitable industrial vacuum is connected and that operator is wearing suitable breathing respiratory equipment. Contact your local work place health authority to ensure that their requirements regarding respiratory equipment are being met.

Starting the Grinder

- Check the grinding plate being used is suitable for the material being ground

  AND THAT THEY ARE CORRECTLY BALANCED.

- Check that the grinding plates being used are in good order and properly attached, with all countersunk bolts firmly in place. Check this occasionally during use, as they can work loose during operation.
- Check that the grinding plate is adjusted so that it sits level on the ground.
- Check that all nuts and bolts on the folding handle latch are tight and firm.
- Raise the grinding plates from the floor.

- Start the motor by pressing the black switch on the starter box.
- Lower the grinding plate and commence grinding.

Stop the Grinder

- De-press the red stop button on the starter box.

Note:

- By turning and pushing the handles, you can fix vertical grinding position.
- You can adjust the axle's width for your need

Other instructions during working:

1. Wear clothes suitable for the job and for the work place including, safety shoes, hard hat, hearing protection, non-fogging vented safety goggles, and dust respirator suitable for dust.
2. Be sure all equipment is tested and tagged prior to use on any job.
3. Inspect entire area to be ground before grinding and remove any bolts or concrete nails (etc) that could damage diamond tooling or machine which could cause a hazardous situation.
4. Ensure there are no obstacles or existing structures that could present a hazard to the operator. If so, take necessary action to eliminate the hazard.
5. Fold handle into the highest position in operating model and lock in place using the locking lever, then tilt machine back so handle is resting on the floor.
6. Install appropriate diamond tool on the machine. Only use genuine GSA250 parts or accessories. Failure to comply could result in bodily injury.
7. Tilt machine back onto the disk and lock handle into the best position for the operator comfort.
8. Connect machine to suitable power outlet. Only use heavy duty power lead suitable for high current use (preferably 2.5 mm2 cable), no longer than 20 meters.

9. If no power is available within the specified distance, have a qualified person install a suitable power outlet closer to your work. Alternatively use 4 mm2 cable for up t0 50 meters.

10. Connect a suitable dust extractor to the machine via a 50mm flexible hose. The machine is designed to take the standard GSA250 hose ends to make connection of dust extractors easy and hassle free.

11. Keep machine clear of drainage pits and grates or any such hazard. Failure to comply could result in bodily injury and or could damage the machine or property.

12. Ensure machine is on a level surface and handle is not folded (see operation mode on previous page).

13. Switch on the dust extractor.

14. Hold the handles firmly and switch the machine on by pushing the black button.

15. The machine is designed to operate with the wheels in contact with the floor at all times. Do not operate with wheels off the floor.

16. Do not attempt to make any adjustments while the machine is in operation. Any adjustments must only be performed when machine is stopped and power disconnected.

17. In the event of the machine pulling to one side all the time; adjust the axle height to obtain the best result.

18. After a few minutes of grinding, check the wear out of the diamond tool due to soft concrete/abrasive concrete. We have a wide range of diamonds to suit every need.

19. WARNING! Breathable silica may be generated by use and maintenance of this machine. Silica can cause severe and permanent lung damage, cancer, and or other serious diseases. Do not breathe the dust. You must wear appropriate respiratory protection when operating or maintaining this equipment.

20. All electrical maintenance and repairs to be carried out by qualified persons only.

21. CAUTION-Line terminals may be alive when main switch is in the off position. Disconnect all power at source before performing any maintenance or repairs.

22. WARNING-DO NOT operates the machine with any electrical panels open.

23. WARNING-The GSA250 has an overload switch and will trip when under excessive load and will not allow the machine to be switched on if it is overloaded.

24. Never use equipment that has not been tested and tagged (including cords).

25. Before connecting the machine to power, check the condition of all power leads and cables on, or used in conjunction with the machine. Do not use it if any fault(s) cuts; wear marks, bare wires out of plugs or sockets, etc…

    Get qualified persons to repair and re-tag it as required by regulations in your country.

Troubleshooting

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Machine doesn't start/ run	1. No power is available at cable end; 2. Machine is trying to start on glue or other sticky substance; 3. Power lead is too small in capacity or too long.	• Check and confirm the power cable is available; • Clear a patch with scraper and grind into the glue a little, preventing glue build-up on diamonds; • Upgrade the power lead to 2.5mm2(15meters max) or 4mm2(30 meters max)
Machine is not grinding at all	No blade/accessories in unit.	• Fit blade and check wear on machine.
	Very Hard Cocrete or glazed topping on concrete	• Turn dust extractor down, the extra dust acts as an abrasive between the segments, making diamonds work better. • Place river sand or equivalent on the floor as an abrasive as described above. • Use Softer grade diamond tool, which will expose the diamonds better. • Use Coarser diamond tool, which will get through the hard topping without wearing out the diamond too fast

Grinder runs for 5-15 seconds, then stops	The current allow screw is not adjusted properly	• Adjust the current screw to the right position
	Extension cable too long and/or not made from heavy enough cable	• Get electrician to check extension lead compatibility
Grinder runs but does not perform adequately	Motor defective	• Repair or replace
Grinder vibrates during use	Grinding plates not correctly balanced	• Replace or re-balance grinding plates
Grinding noise coming from grinding head when up on jockey wheel.	Excessively worn motor bearings	• Have motor serviced.
The diamonds are wearing out too fast	The concrete is: Soft Abrasive Concrete Rain Damaged A rough finish(Scarified)	• Use a powerful dust extractor to remove as much dust as possible
		• Use harder diamond matrix to expose diamond easily
		• Use diamond cup wheels with more segments or area of l segment to reduce wear.

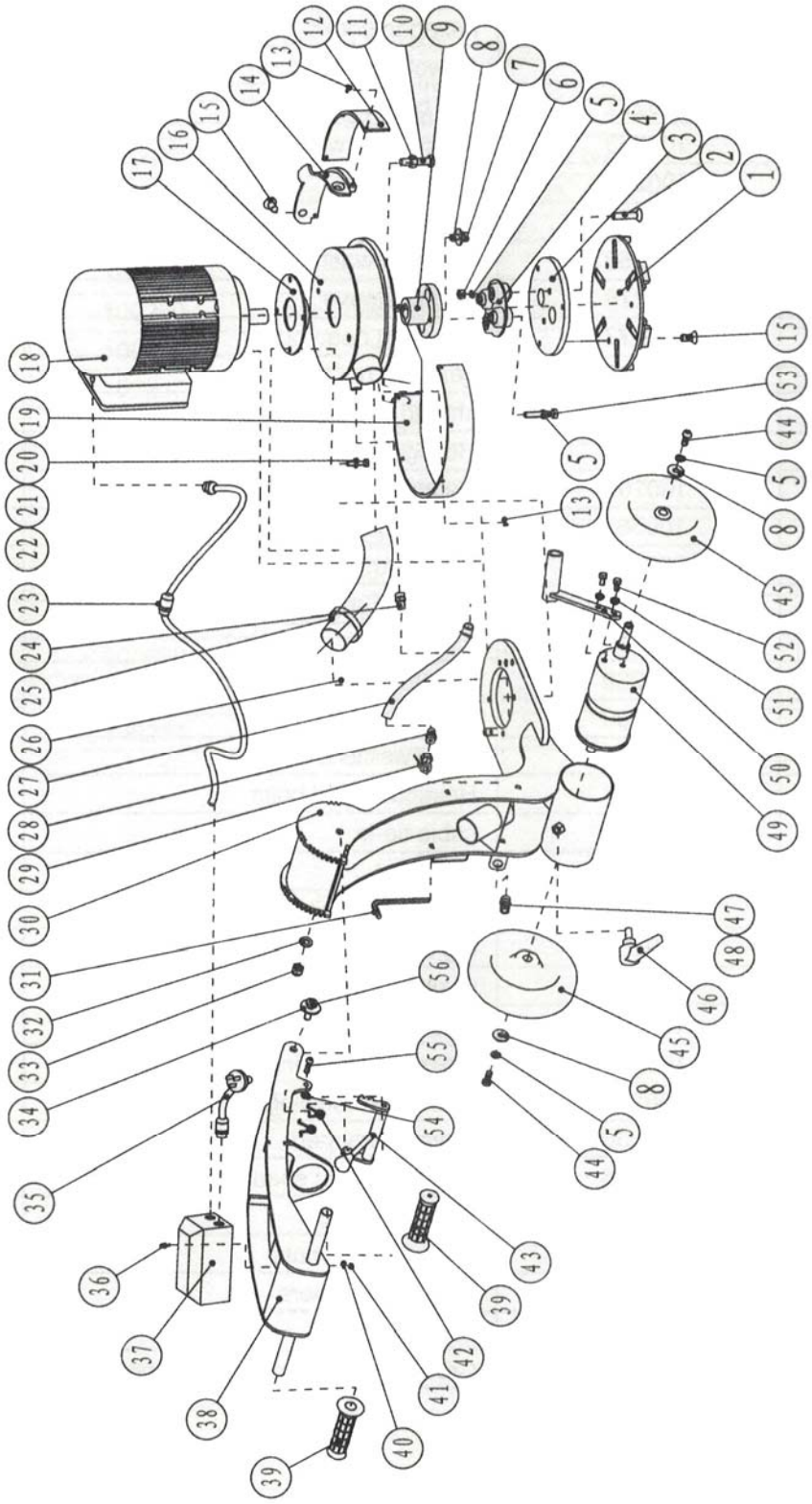
Maintenance

- Daily cleaning: The motor in use should always be kept clean. No water drops, cotton etc should be allowed to get into the interior of the motors.
- Check on load current: While the motor is in operation, constant care should be taken to keep the load' current below the rated value.
- Operational sounds: During operation of the motor there must be no rubbing sounds, shrieks or other random noises. Stop the motor immediately and restart after inspection and corrections have been made.
- Check folding handle latch periodically. This is adjustable. To adjust, loosen the lock nut on the latch and then screw in until a satisfactory tension has been achieved.
- The wheel bearings use seated bearings and require no regular greasing.

NB To minimize vibration and uneven blade wear, rotate plate every 2 hours.

Failure to do so can lead to premature wear of the flexible coupling

Exploded View



PARTS LIST

Item No.	Part No.	Description	Qty
1.	100663	Main Disc	1
2.	100279	Hexagon Socket Countersunk Screw	2
3.	100664	Dowel Disc	1
4.	100272	Flex Coupling	1
5.	100253	Spring Lock Washers	4
6.	100275	Hexagon Nut	2
7.	100274	Hexagon Head Bolts	1
8.	100266	Big Plain Washers	3
9.	100276	Driving Sleeve	1
10.	100277	Hexagon Head Bolts	2
11.	100210	Hexagon Nut M12	2
12.	100207	Shroud Plastic Wear strip set	1
13.	100206	Hexagon Socket Head Screws	9
14.	100208	Detachable Shroud	1
15.	100665	HEX. Socket countersunk Screw, M8×16	5
16.	100270	Enclosure	1
17.	100211	Location Case	1
18.	100216	Motor	1
19.	100269	Shroud Plastic Wear Strip Set	1
20.	100109	Washer 8-2/2	4

21.	100086	Spring washer 8-6/2	4
22.	100268	Hexagon Head Bolts	4
23.	100066	Cable Tie-in	2
24.	100267	Pipe Joint	1
25.	100222	Flexible Conduit L=480	1
26.	100263	Big Clip	2
27.	100222	Flexible Conduit L=245	1
	100264	Small Clip	2
28.	100249	Crossover Coupling	1
29.	100249	Crossover Coupling	1
30.	100666	Frame Body Part	1
31.	100245	Inner Hexagon Spanner	1
32.	100307	Flat Washer 12	2
33.	100667	Hexagon Jam Nuts	2
34.	100668	Big Plain Washers	2
35.	100669	Power Cord	1
36.	100670	Cross recessed pan head screw M4×16	3
37.	100223	Breaker, GV2-ME16C	1
	100224	Breaker crust, GV2-MC02	1
	100225	UVT assemble	1
38.	100671	Upper Arm	1
39.	100217	Grip	2

40.	100672	Plain Washers	3
41.	100673	HEX. Lock nut M4	3
42.	100674	Lock twist spring (left/right)	2
43.	100675	Positioning clamping claw buckle	1
	100676	Adjustable handle M10 ×25	1
44.	100252	Hexagon Socket Button head screws	2
45.	100251	Wheel	2
46.	100250	Adjustable handle M10 ×25	1
47.	100246	Quick Joint	1
48.	100247	O-Ring	1
49.	100678	Eccentric Shaft	1
50.	100679	Lift Lever	1
51.	100654	Spring Washer	2
52.	100262	Hexagon Bolt	2
53.	100273	Hexagon head Bolts	2
54.	100303	Flat Washer 8	2
55.	100680	Hexagon Socket Button Head Screws	2
56.	100681	Hex flat round head screws	2
57.	100271	Key	1