

INSTRUCTION MANUAL

BG-12 Industrial Pedestal Grinder (415V) 305mm Fine/Coarse Wheels



G164

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SAFETY RULES FOR ALL POWER TOOLS

1. Read and become familiar with the entire instruction manual. Learn the tool's applications, limitations and possible hazards.
2. Earth all tools. If the tool is equipped with a three-prong plug, it must be plugged into a three-contact electric outlet. The third prong is a ground to provide protection against accidental electrical shock. If an adaptor is used to accommodate a two-contact outlet, the adaptor's grounding lug must be connected to a known ground. Never remove the third prong on a three-prong plug.
3. Check damaged parts. A guard or any other part that is damaged should be checked to ensure that it will operate properly and perform its intended function before the tool is used further. Check for proper alignment of moving parts and for possible broken parts, loose mountings, or any other condition that could affect the tool's operation. A guard or other damaged part should be properly repaired or replaced.
4. Disconnect power before servicing and when changing accessories such as blades, cutters.
5. Keep guards in place and in working order.
6. Protect your eyes from being injured by objects thrown by a power tool. Always wear safety glasses or safety goggles.
7. Wear a face mask or dust mask if the cutting operation produces dust.
8. Don't force the tool. It will give a better and safer performance when used on jobs for which it was designed.
9. Avoid accidental starting. Ensure that the power switch is in the OFF position before plugging in the power cord. Remove the switch when the tool is not being used.
10. Remove adjusting keys and wrenches. Ensure that keys and adjusting wrenches are removed from the tool before turning it on.
11. Drugs, alcohol, and medication. Do not operate tool if you are under the influence of drugs, alcohol, or medication that could effect your ability to use the tool properly.
12. Use recommended accessories. Using improper accessories can be hazardous. If in doubt, check the instruction manual.
13. Never stand on a tool. Falls can result in injury.
14. Never leave a tool running unattended. Turn the power switch OFF. Don't leave the tool until it has come to a complete stop.
15. Always remove the power cord plug from the electric outlet when making adjustments, changing parts, cleaning, or working on the tool.
16. Avoid dangerous conditions. Don't use power tools in wet or damp areas or expose them to rain. Keep your work area clean and well-lighted. Do not use power tools in areas where fumes from paint, solvents, or flammable liquids pose a potential hazard.
17. Keep visitors and children away. Other people should keep a safe distance from the work area, especially when the tool is operating.
18. Use the proper tool. Don't force a tool to do a job for which it was not designed.
19. Keep tools in top condition. Keep them clean and sharp for the best and safest performance. Follow the instructions for changing accessories and lubricating.
20. Secure all work. When practical use clamps or a vise to hold work. It is safer than using your hands and prevents round or odd-shaped pieces from turning.
21. Don't overreach. Keep proper footing and balance at all times. Wear oil-resistant rubber-soled footwear. Keep the floor clear of oil, scrap wood, and other debris.
22. Wear proper clothing and, if necessary, protective hair covering. Loose clothing or jewelry can get caught in moving parts.
23. Make the workshop childproof with padlocks, master switches, or by removing starter keys.

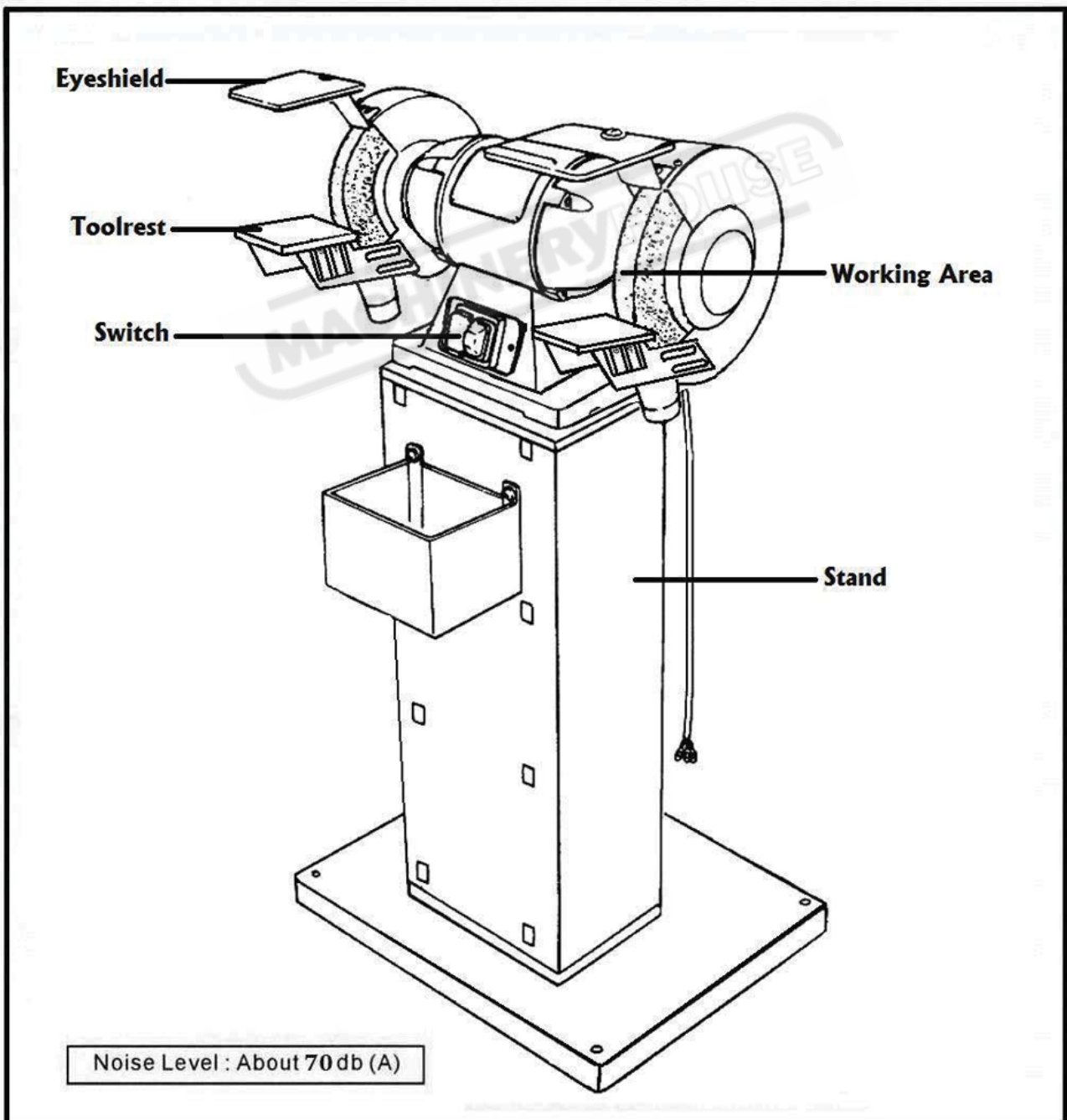
About Your Machine

Technical Data

MODEL	GR 1223
Grinding Wheel (mm)	300x50x25.4
Motor (kW output)	1.5
Speed (rpm)	1420
Dimension (mm)	740x475x390
Net Weight (kgs)	76

- Above data is manufacturer's standard specification. It can be produced by customers' special request.

Getting to know your machine



Unpacking And Checking List

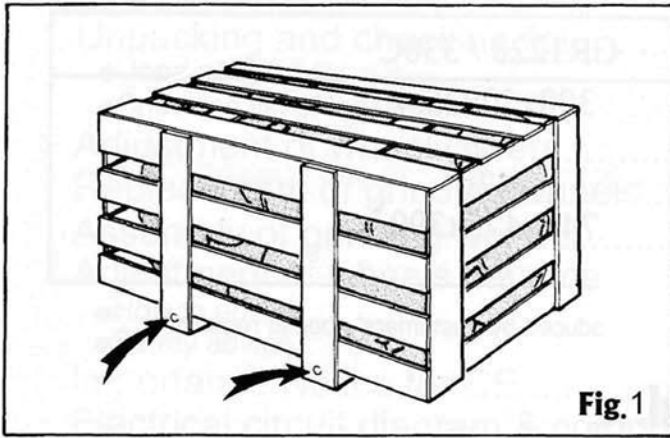


Fig. 1

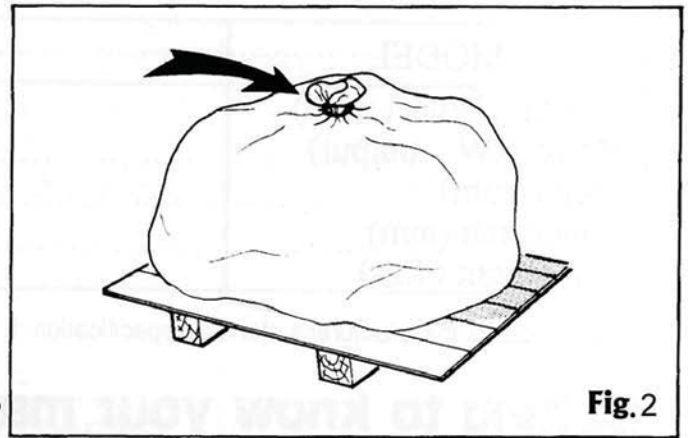


Fig. 2

Unpacking

- 1 Check wooden crate, make sure it's in good condition before unpacking. Contact nearest dealer if packing crate was seriously damaged.
- 2 Remove crate cover.
- 3 Loosen packing bag, machine would show up.
- 4 Machine base was fixed to wooden pallet. Loosen these 4 fixing bolts as figure 3 before it can be moved.

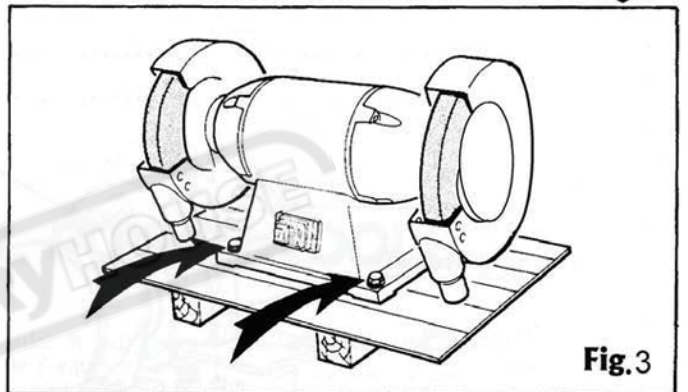


Fig. 3

Checking list of loose parts

Ref. No.	Description	Q'ty.
1	Toolrest (left/right)	2
2	Washers, M8x12x2	16
3	Hex. bolts, M8x12L	16
4	Hex. wrench 3mm	1

- These parts are shown in figure 4.

Toolrests assembly

- 5 Combine toolrest tables and supports. Donot tighten fixing bolts.
- 6 Connect these assembly unit to grinding cover, as figure 5.
- 7 Put toolrest tables in correct position, keep about 2~3mm distance from grinding wheels.
- 8 Make sure all bolts are firmly tightened

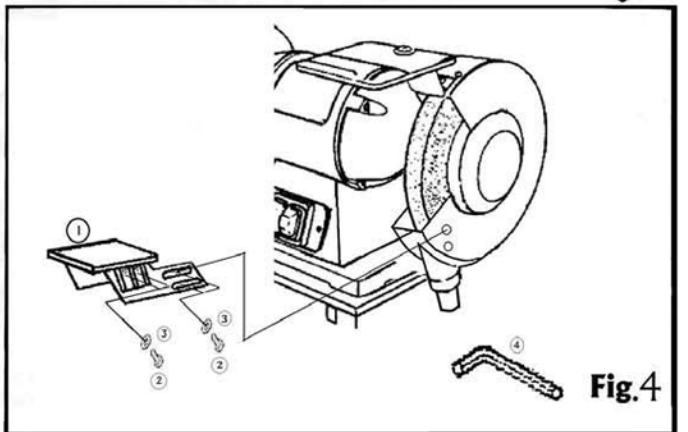


Fig. 4

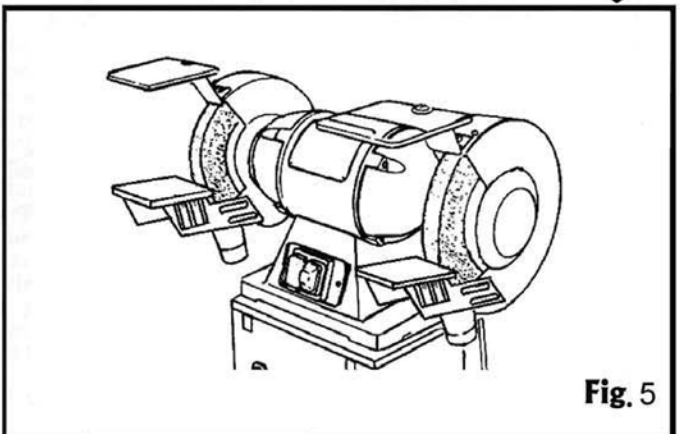
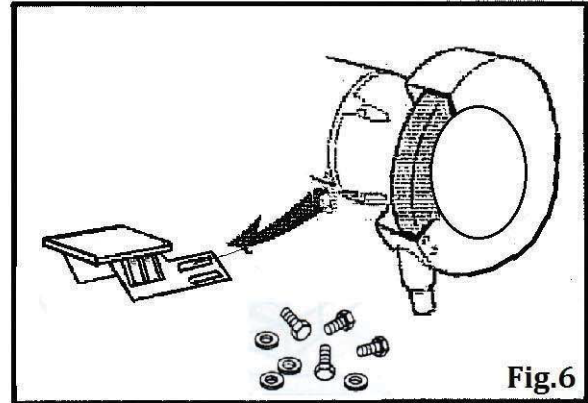


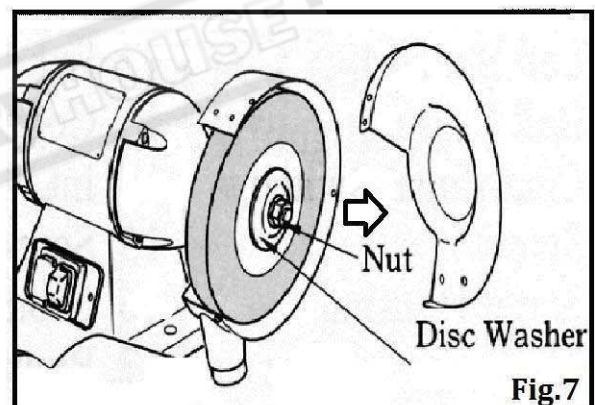
Fig. 5

Replacement of Grinding Wheels

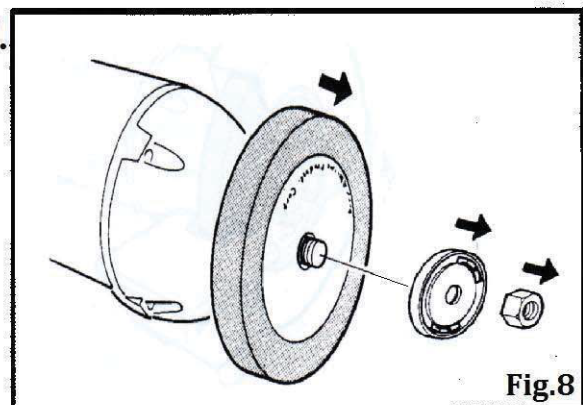
1. Remove toolrest table/support unit from wheel cover as figure 6. It's fixing bolts for one unit.



2. Take off wheel cover.



3. Remove nut, balancing flange and wheel. Put new wheel and every parts back in reverse order. It's important to make a good adjustment of balancing before assembling covers. This message could be learned in next page.



Replacement of Grinding Wheels

Take off wheel

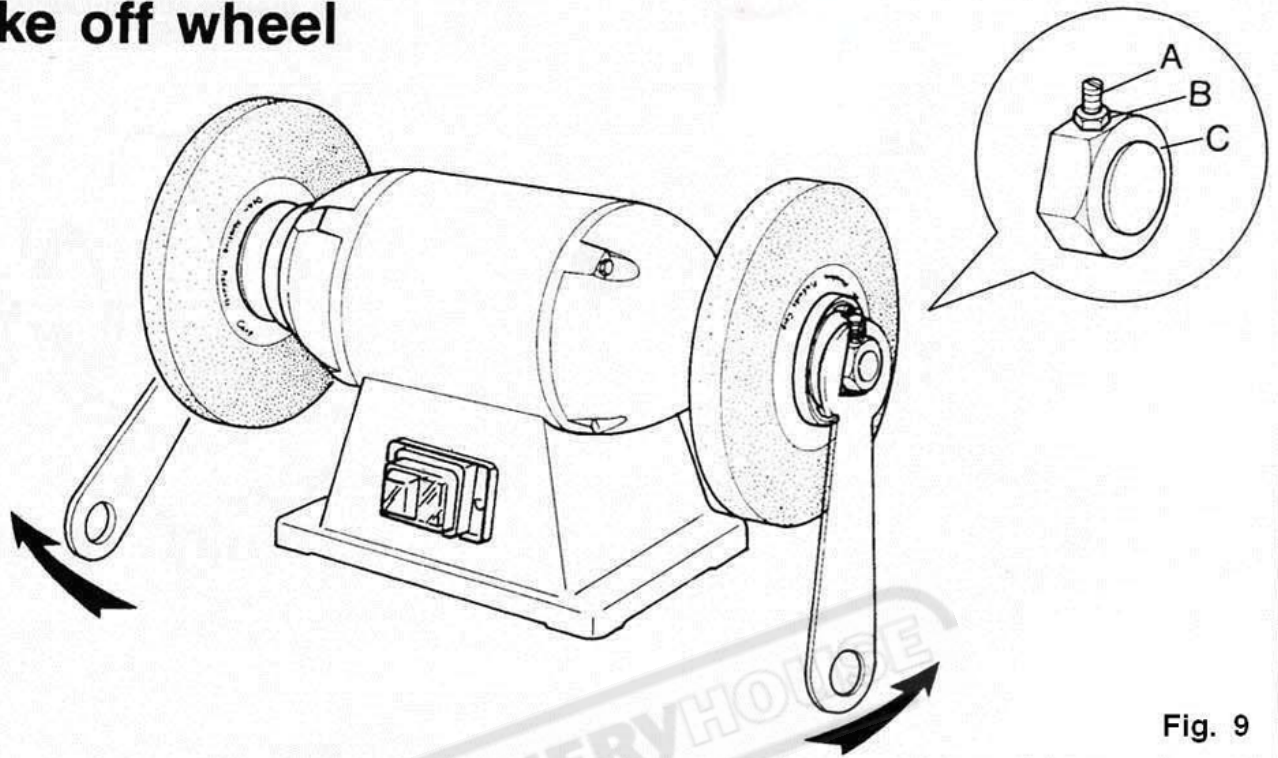


Fig. 9

Release hex. Nut "B" (M6), then loosen screw "A" (M6), as figure No. 9 use wrench as stop in one end of wheel, use another wrench to remove nut "C" (1" – 8UNC), balancing flange and grinding

wheel in order.

Note: Don't take off the screw (M6) so as the inside copper stays in position.

Install wheel

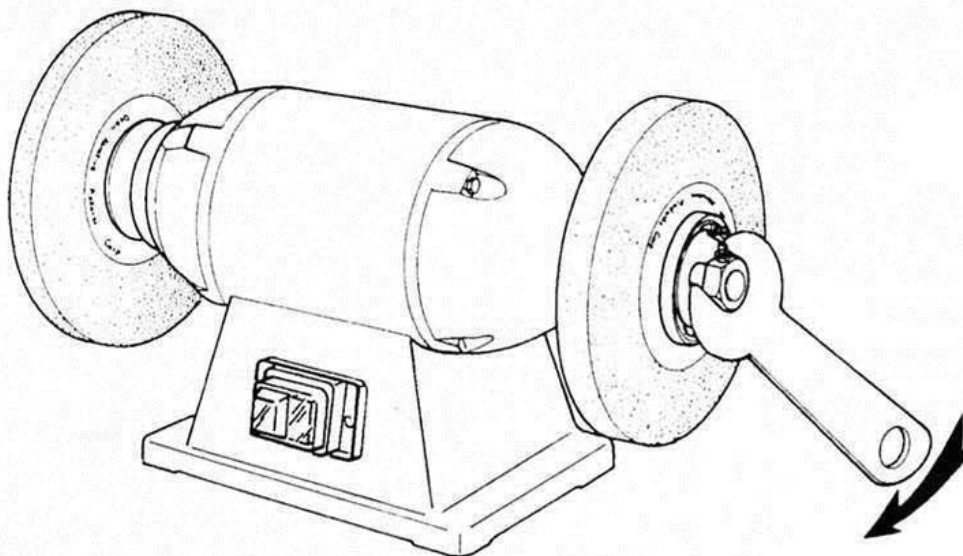
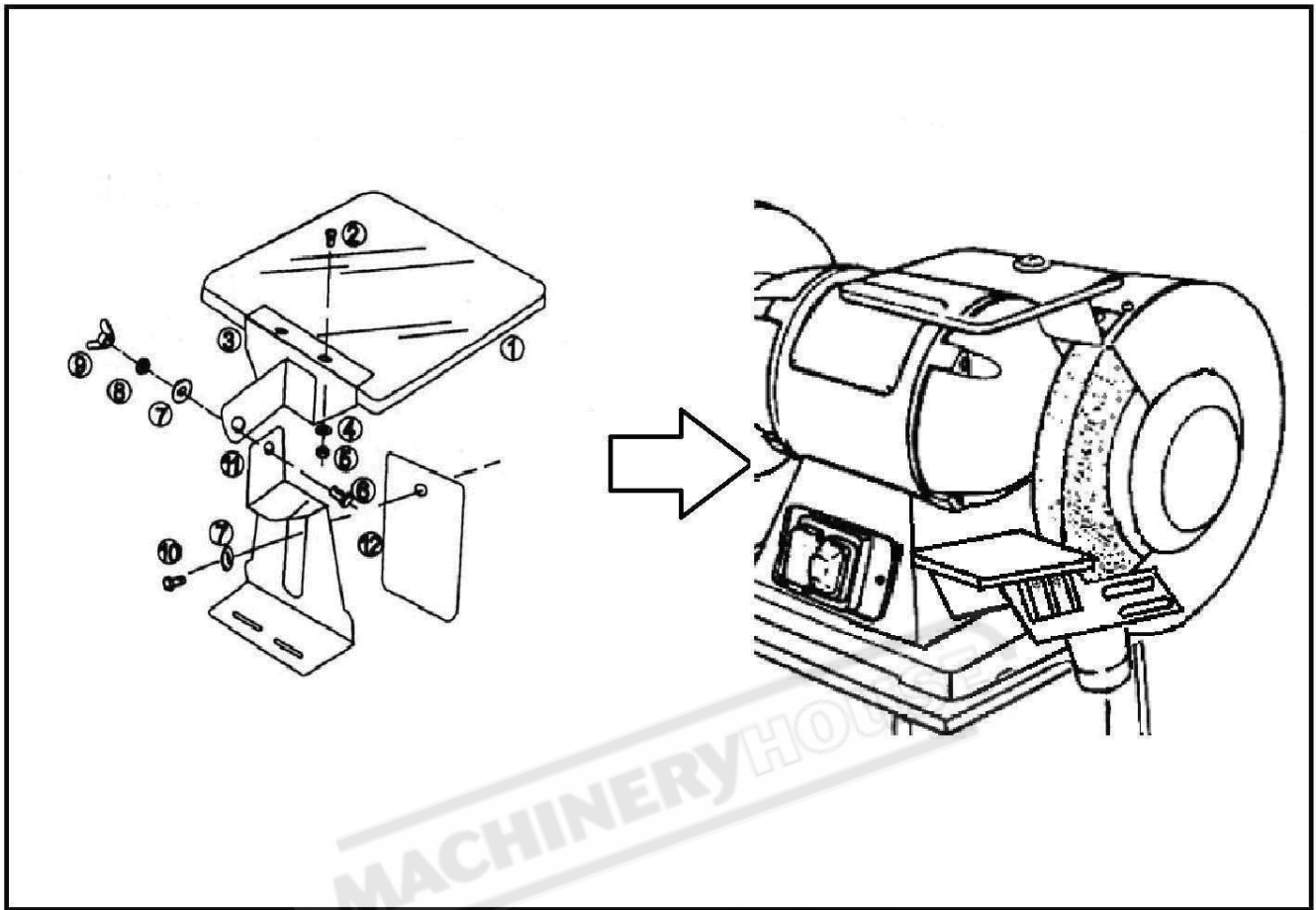


Fig. 10

Reverse above procedure and fasten the hex. Nut "C" (1" – 8UNC) to secure wheel. Then, make

quick hammering to lock wheel completely, as Figure No. 10

Assembly of Eyeshield



Parts list of eyeshield

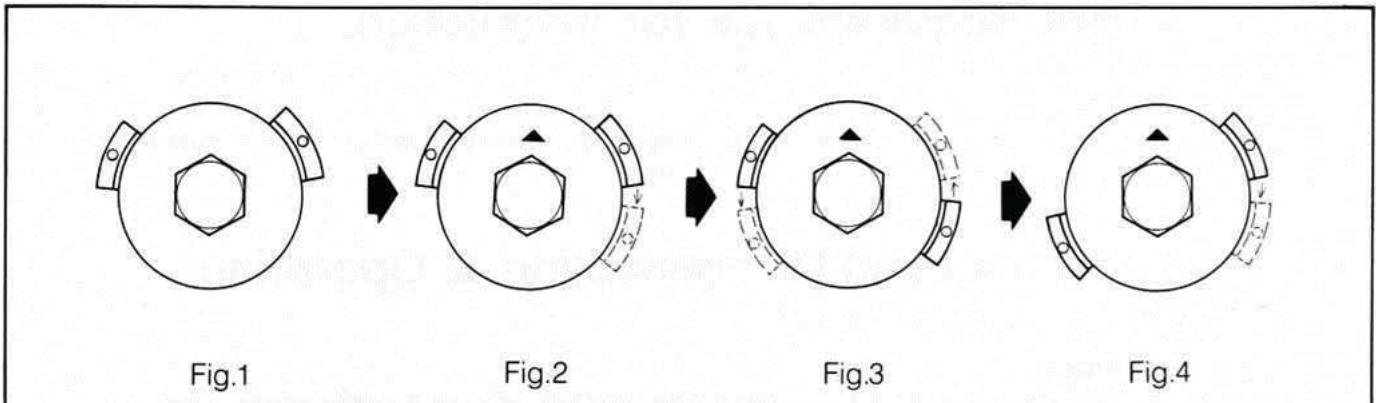
Ref.No.	Parts Name	Q'ty	
		GR	PR
1	Eye Shield	1	1
2	Screw	1	1
3	Support Plate	1	1
4	Washer	2	2
5	Hex. Nut	2	2
6	Hex. Bolt	1	1
7	Washer	2	1
8	Spring Washer	1	1
9	Wing Nut	1	1
10	Screw	1	-
11	Bracket	1	1
12	Spark Arrestor	1	-

Adjustment of Wheels Balance

This job can be started when shaft nut of wheels were tightened.

The balancing adjustment was done through one particular parts of balancing blocks on

balancing flange. It requires repeated testing by moving positions of two balancing blocks on balancing flange.



How to adjust

- 1 Put two balancing blocks in position showned in figure No. 1. Make first test run and check the balancing result.
- 2 Switch off if the balancing was no good. Start our first adjustment. Turn wheel to the original position as figure No. 1 by hand. Mark on wheel as figure No. 2. Move the right hand balancing block clockwise to new position, and tighten it. Make the second test run and check again.
- 3 Switch off if it's still not satisfied. Return balancing block to original position. Move the left hand balancing block counterclockwise to new position as figurer No. 3. Make test run again.
- 4 If this is still no good, stop machine and try new position as figure No. 4.
- 5 Please note that you should not adjust the much movement for balancing blocks in every step of mentioned above, and you will be easy to understand its characteristic and make the machine to be your hand.

Safety advice on the mounting of new grinding wheels

- Before mounting the wheel, brush it clean and examine it for damage. The soundness of a new wheel can be further checked by suspending it vertically and tapping it with a light non-metallic implement; it should ring. Do not use it if it sounds dead (cracked).
- Flange size is normally not smaller than 1/3 to wheel diameter.
- Do not force the wheel onto the machine or alter the centre hole diameter of the wheel.
- Tighten the nut on the flanges only sufficiently to ensure that they drive the wheel. Hand pressure on a standard spanner is enough; excessive force may damage the wheel.
- Adjust the Balancers of flanges.
- Wheel of newly mounted must be tested on free run for at least one minute. Do not stand directly in front of the wheel while test run or when adjusting the Balancers.
- Ensure that the wheel guard is in position.
- After finishing the mounting of new wheel, you may proceed to work, but please do not grinding at the side part of straight type wheels or with incompatible workpiece.

Importance Notice For CE

Handling of Grinder

1. The net weight of this machine is about 97kgs including stand, it is better to handle and transport with the help of lifting tools.
2. The total weight of machine must be ensured before handling.

Environment Requirements for Installation.

1. Be sure to provide sufficient light for operation according to the codes or regulations published for local area.
2. If you do not get the information about lighting, a lighting intensity of 300 LUX is the least of value to be supplied.

Electrical Connection/Disconnection & Operation

FOR THREE PHASE

1. Electrical connection:

- 1.1. A cable with four wires is equipped to connect your machine into the 3 phase power supply.
Please connect your machine into the power supply with hand-operated disconnecting device, which is in compliance with subclause 5.3 of EN60204-1, such as no fuse breaker or plug/socket combination.
- 1.2. For the protection of control device, we recommend the operator to supply **a fuse with 6A. current rating of fuse**, and the total length between fuse and connection terminal shall not exceed 1.5 m.
- 1.3. The **exact power source voltage, frequency, and number of phase** shall be checked according to the installation diagram and circuit diagram.
- 1.4. **The correct direction of grinder should be checked after connecting.**

2. Electrical disconnection:

- 2.1. The disconnection is carried out by hand-operated disconnecting device.
- 2.2. Be sure to disconnect this machine from power source, when you want to stop the job, maintenance, and adjustment.

3. Grounding.

The grounding of the grinder is carried out **by connecting the Yellow/green terminal of supply cable** to the grounding terminal of power source. Be sure to ground your machine before connecting machine to power source in any situation.

WARNING!

Do not disconnect grounding terminal before disconnecting power source.

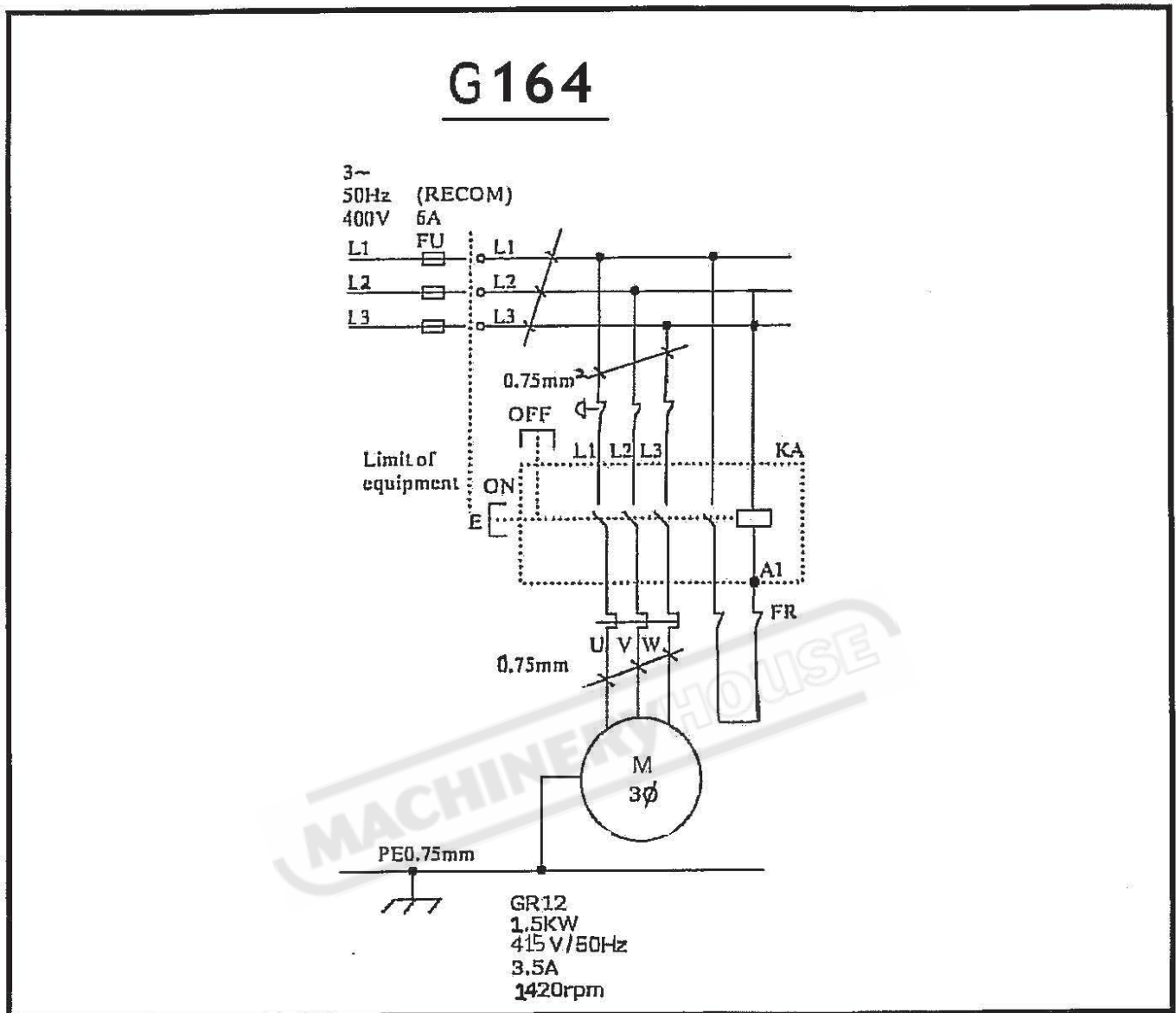
OPERATION.

1. **"START"** : Push the button marked with " I ".
2. **"STOP"** : Push the button marked with " 0 ".


MAINTNANCE:

1. Be sure to disconnect the machine from the power source.
2. If motor being overload, the overload relay will be active.
3. It is an automatic recovery type. The motor is liable to be restarted if overlord relay is cooled down automatically.

Electrical circuit diagram

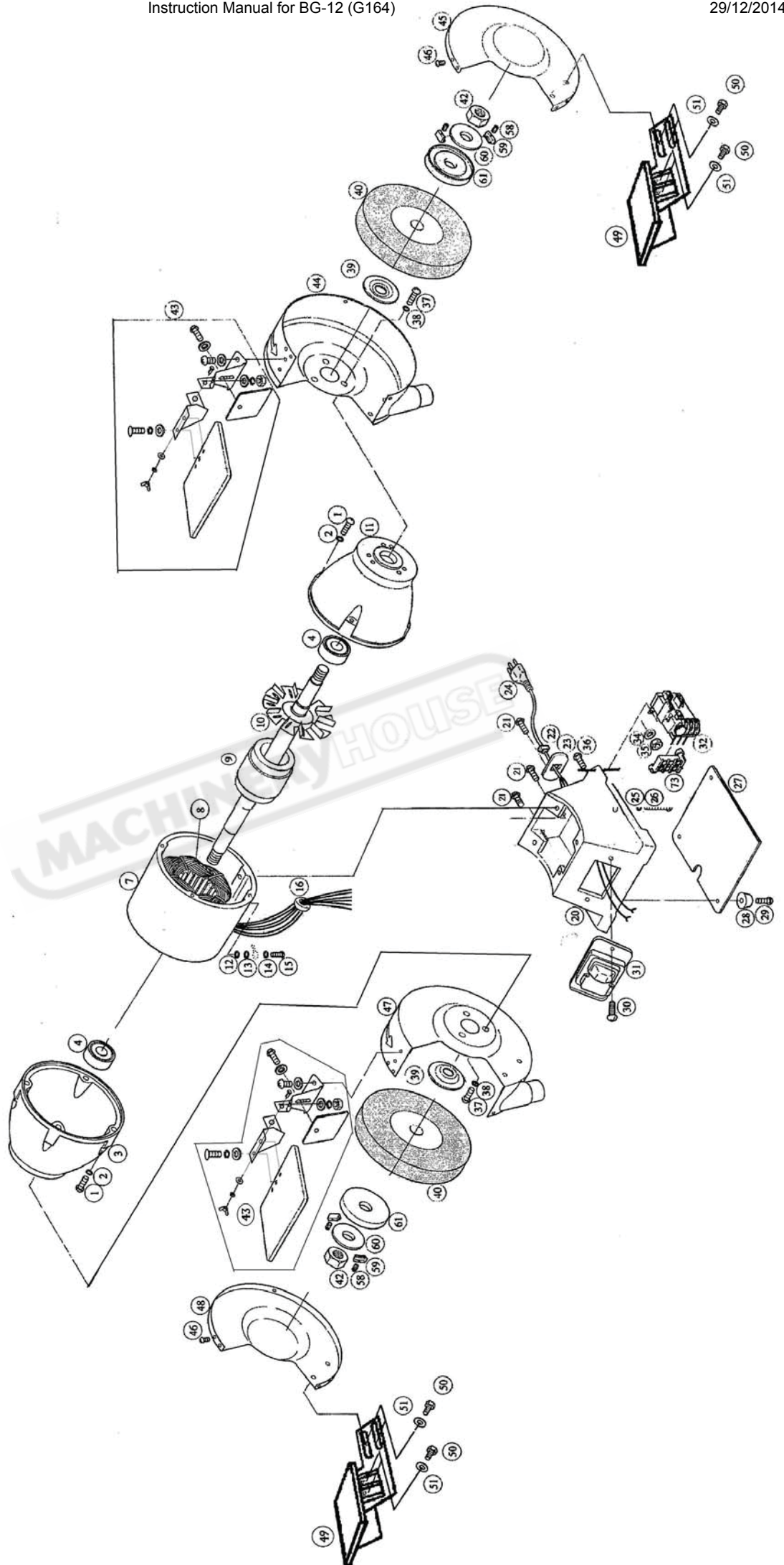


Electrical components parts list.

Item Designation	Description & Function	Technical Data	Remark
KA	Magnetic Contactor	415 VAC 10A	CE JD2
FR	Overload Protector	2.8-4.2/3.5A	CE, IEC947
	Cable	VCTF 4 x 0.75mm	
	Emergency Stop		

[EXPLODED VIEW]

1. Screw	10. Fan	30. Screw	40. Grinding Wheel	50. Hex. Bolt	70.
2. Spring Washer	11. Right Support	31. NVR	41. Grinding Wheel	51. Washer	60. Washer
3. Left Support	12. Ext. Washer	32. Overload Protector*	42. Hex. Nut	52.	61. Balancing Flange
4. Ball Bearing	13. Cable Strainer	34. Spring Washer*	43. EYESHIELD SET	53.	62.
5.	14. Int. Washer	35. Hex. Nut*	44. Right Int. Cover A	54.	63.
6.	15. Screw	36. Screw	45. Right Wheel Cover A	55.	64.
7. Stator Housing	16. Grommet Rubber	37. Screw	46. Left Int. Cover A	56.	65.
8. Rotor Shaft*	17.	38. Spring Washer	47. Left Int. Cover A	57.	66.
9.	18.	39. Disc Washer	48. Left Wheel Cover A	58. Set Screw	67.
	19.		49. Toolrest	59. Balance Block	68.
					69.
					71.
					72.
					73. Wiring Board



Cabinet Workstand (Optional)

Unpacking and checking list

Ref. No.	Parts Name /Description	Q'ty
1	Stand	1
2	Bottom Plate	1
3	Hex Bolt (M8x20L)	8
4	Spring Washer(M8)	12
5	Washer (M8x30x3t)	4
6	Washer (M8x18x2t)	8
7	Hex Bolt (M8x40L)	4
8	Cooler Boxer	1
9	Screw (M6x16)	2
10	Washer (M6x16x2t)	6
11	Spring Washer (M6)	4
12	Hex Bolt (M6x12L)	4
13	Stand Top	1
14	Hex Nut(M8)	4

