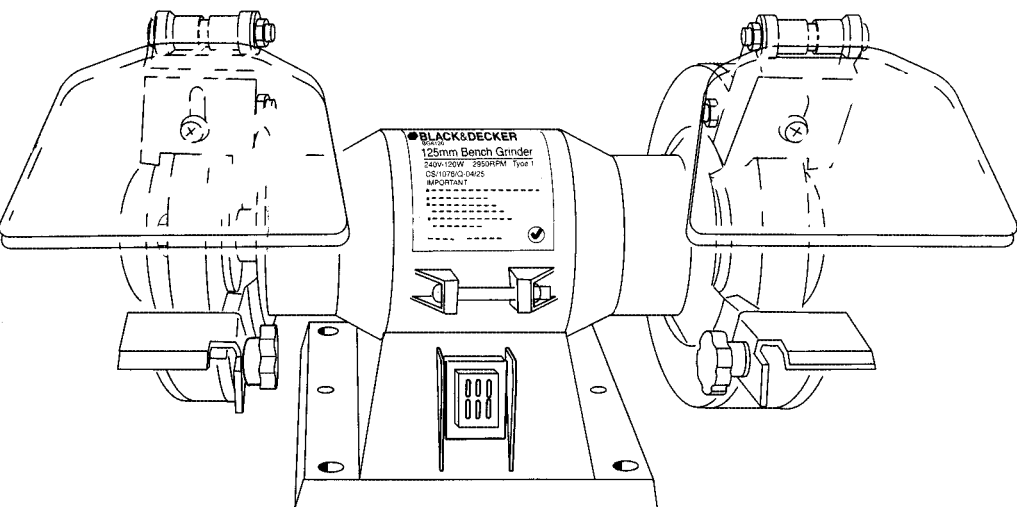




# Bench Grinder

## Instruction Manual



**Australia/  
New Zealand**  
#764014

Consistent with our continuing product development, improvements may have been made which render the contents of this instruction manual slightly different to the product received.

**Models: BG5120,  
BG6150,  
BG6200**



## GUARANTEE CARD

### AUSTRALIA / NEW ZEALAND 2 YEAR REPLACEMENT GUARANTEE

Black & Decker welcomes you as a purchaser of this product from our range of Home Power Tools and Accessories. All our products are engineered and manufactured to ensure the highest standards of reliability and performance. Black & Decker guarantees this product for a period of 2 years from the date of purchase against defects due to defective materials or workmanship. If the product should become defective within the guarantee period, Black & Decker will make good by **REPLACEMENT** free of charge except for minor defects where the appliance may be repaired. The guarantee provisions do not cover failure due to accident, misuse, abuse, negligence or lack of observation of local regulations on the part of the user.

Equally, the guarantee provisions do not apply where the appliance has been serviced by a person not authorised by Black & Decker or serviced with non-approved parts and this has contributed to the fault of the product. Superseded models without a replacement equivalent will either be repaired or (at Black & Decker's discretion) replaced with another product of similar retail value.

#### UPON PURCHASE

Fill in the Warranty Registration Card overleaf and attach your purchase receipt to it. Retain in case of claims in the future.

#### MAKING A CLAIM

Take your defective product together with the Warranty Registration Card and purchase receipt to the place of purchase. You can do this either in person or send by freight. If mailing or shipping your appliance, ensure to remove all water and pack it carefully in a sturdy carton with enough packing material to prevent damage.

#### TRADE PRACTICES ACT 1974 (AUSTRALIA) & CONSUMER GUARANTEE ACT 1993 (NEW ZEALAND)

The provisions of the Black & Decker Home Appliance Replacement Guarantee as set out above are in addition to the conditions and guarantees which are mandatorily implied by law through Trade Practices Act 1974 (Australia) and Consumer Guarantee Act 1993 (New Zealand) and legislation. **The Black & Decker Guarantee supplements these rights.**

#### DESIGNED FOR DOMESTIC PURPOSES ONLY

#### WARRANTY REGISTRATION

NAME:

ADDRESS:

P/CODE:

PHONE:

Catalogue Number:

Description:

Date of Purchase:

Retailer's Name:

**Congratulations!**

**On the purchase of your  
Black & Decker bench grinder.**

To ensure the best results from your bench grinder please read these safety and usage instructions carefully.

If you have any questions or queries after reading this user manual please do not hesitate to call our Service and Information Centre.

**Service Department:**

**Australia**

20 Fletcher Road  
Mooroolbark 3138  
Tel: 1 800 654 155

**New Zealand**

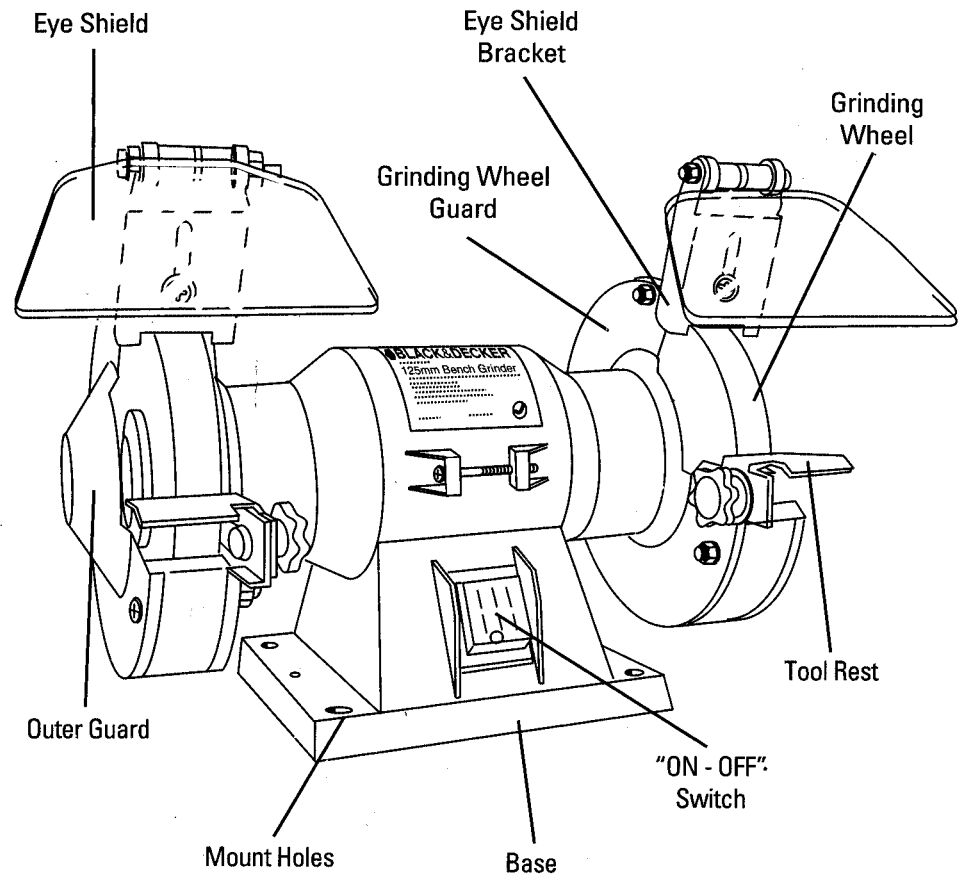
5 Te Apunga Place  
Mt Wellington Auckland  
09 259 1111

**For Repair or Service in Australia:**

See "Electric Tools-Retail and/or Repairs"  
section of Yellow Pages,  
otherwise Tel: 1800 654 155  
to be connected to your nearest  
Service Agent.



## Bench Grinder



## SAFETY INSTRUCTIONS

**Warning!** When using electric tools, the following basic safety precautions should always be taken to reduce the risk of fire, electric shock and personal injury. Read all these instructions before attempting to operate this product. Save these instructions.

### For safe operation:

- We recommend that you take appropriate measures for the protection of hearing if the sound pressure of 85 dB (A) is exceeded.
- **Keep the work area clean.** Cluttered areas and benches invite injuries.
- **Consider work area environment.** Do not expose power tools to rain and do not use power tools in damp or wet locations. Keep the work area well lit. Do not use power tools where there is a risk to cause fire or explosion.
- **Keep children away.** Do not let visitors touch the tool or extension cord. All visitors should be kept away from work area.
- **Store idle tools.** When not in use, tools should be stored in a dry, high or locked place, out of reach of children.
- **Do not force the tool.** It will do the job better and more safely at the rate for which it was intended.
- **Use the right tool.** Do not force small tools or attachments to do the job of a heavy duty tool. Do not use tools for purposes not intended; for example, do not use a circular saw to cut tree limbs or logs.
- **Dress properly.** Do not wear loose clothing or jewellery as they can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- **Use safety glasses.** Use a face or dust mask as well if the operation is dusty or if using in enclosed spaces.
- **Do not abuse the cord.** Never carry the tool by its cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.
- **Secure your work.** Use clamps or a vice to hold your work. It is safer than using your hand and it frees both hands to operate the tool. Where tool rests are used in the case of bench grinders, ensure the tool rest is correctly set and is secure.
- **Do not overreach.** Keep proper footing and balance at all times.
- **Maintain tools with care.** Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged have repaired by an authorised service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.
- **Disconnect tools.** Disconnect when not in use, before servicing and when changing accessories such as blades, discs, cutters and grinding wheels.
- **Remove adjusting keys and wrenches.** Form the habit of checking to see that keys and adjusting wrenches are removed from the tool and replaced in the storage area before switching on.
- **Avoid unintentional starting.** Do not carry or move a plugged-in tool with a finger on the switch. Ensure the switch is off when plugging in and disconnecting the tool.
- **Use outdoor extension cords.** When a tool is used outdoors, use only extension cords intended for outdoor use and so marked.
- **Stay alert.** Watch what you are doing. Use common sense. Do not operate tools when you are tired.

- **Check damaged parts.** Before further use of the tool, a guard or any other part that is damaged should be carefully checked to determine whether it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorised service centre unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorised service centre. Do not use the tool if the switch does not turn the tool "on" and "off".
- **Warning!** The use of any accessory or attachment, other than recommended in this instruction manual, may present a risk of personal injury.
- **Have your tool repaired by an Authorised Service Agent.** This electrical tool is in accordance with the relevant safety requirements. Repairs should only be carried out by an Authorised Service Agent using original spare parts, otherwise this may result in considerable danger to the user.
- This tool is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with this tool.

## Specific Safety Instructions for Bench Grinders.

**Always remove the plug from the mains supply when changing grinding wheels, fitting accessories, cleaning or making adjustments to the grinder.**

Always wear eye protection when starting up and also when using bench grinders. Also ensure the eyeshields are fitted and correctly adjusted.

Always turn the grinder off when not in use. Do not leave an operating grinder unattended. This also includes a grinder running down to the stop condition.

Ensure replacement grinding wheels / wire wheels or any other accessories mounted on the spindle of the grinder are rated at 3000 RPM or higher.

Do not start or continue to use the grinder if the grinding wheel has been subject to a blow, especially to the side of the wheel.

Replace suspect or cracked wheels.

Always allow a new wheel to run for 1 - 2 minutes at full speed before use, ensuring you are standing to one side of the grinder.

Ensure the wheel rotates freely before starting each time. Always stand to one side of the grinder when starting.

Do Not start or use the grinder unless all guards are fitted securely.

Ensure the tool rests are correctly adjusted prior to use.

Do not overload the grinder. The grinders should run at close to full speed during use. If you can notice the grinder is slowing down during use then you are overloading the grinder. "Back Off" and do not apply excessive force.

## Power Connection

The Black & Decker Bench Grinders covered with this manual are designed to operate on standard Household supply 230 - 240 Volts AC 50 Hz.

Check the rating label on the front of the grinder to ensure the correct voltage is marked; ie 240V AC.

The grinder is fitted with a 3 core cordset and plug. The grinders are an Earthed appliance and should the cordset or plug be damaged it must be returned to Black & Decker or one of its service agents or similarly qualified person to avoid a hazard.

## Know your Grinder Limits

The Black & Decker Bench Grinders covered within this manual are designed for light duty applications for home type use only.

These tools are ideal for sharpening drills, chisels and similar type applications and can also be fitted with a wire wheel, again for light applications.

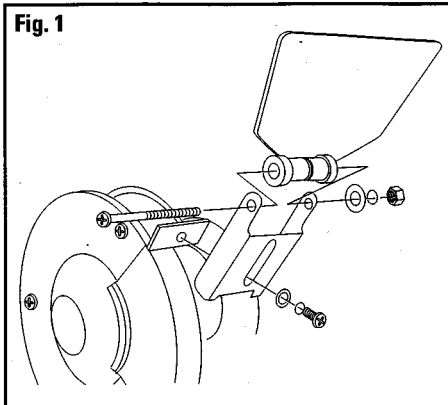
During use, if the load being applied to the grinder noticeably reduces the speed, remove the component which is being ground. Allow the grinder to speed up to full speed and then continue to grind the component but with less pressure on the grinding wheel.

All of the three grinders covered in this manual are fitted with grinding wheels suitable for grinding **METAL ONLY**.

**Do not** use the grinder for grinding any other materials, as other materials like wood, brass, aluminium, copper etc will only clog grinding wheel.

Mis-used grinding wheels are not covered by warranty.

## Preparing your Bench Grinder FITTING AND ADJUSTING THE EYESHIELDS

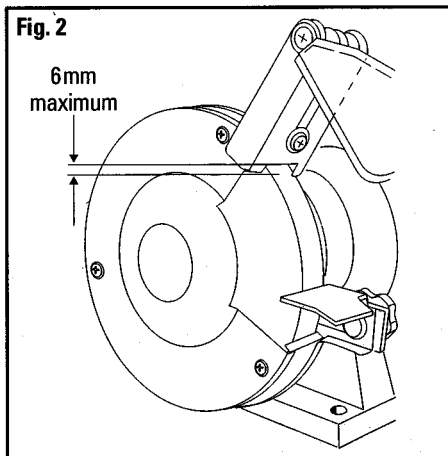


Never operate the bench grinder without the eyeshields correctly fitted. They are supplied for your protection.

To fit the eyeshields, ensure the grinder is turned off and the power plug removed from the socket.

Remove the screw from the top of the grinding wheel guard (Fig. 1). Fit the eyeshield support bracket per the diagram and replace the securing screw finger tight to retain the bracket.

Fit the eyeshield to the top of the bracket and insert the 50mm bolt through the bracket and the eyeshield. Fit the spring washer and nut and



tighten to the point where the eyeshield is firm but can still pivot.

Adjust the height of the eyeshield Support Bracket so the bottom edge of the bracket is less than 6mm from the surface of the wheel.

Tighten the screw securely.

Note, this adjustment should also be made as the grinding wheel wears.

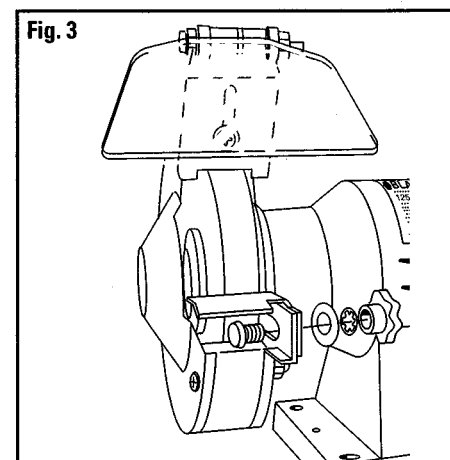
The grinder should not be used if the clearanc between the bracket and the grinding wheel exceeds 6mm (Fig. 2).

## Fitting the Tool rest

A tool rest is supplied for each grinding wheel. The tool rest is the support for the part being ground and the grinder should not be used without the tool rest.

The tool rest should also be adjusted as the wheel wears to ensure the gap between the grinding wheel and the edge of the tool rest does not exceed 1.5mm.

## To Fit the Tool Rest Model BG5120

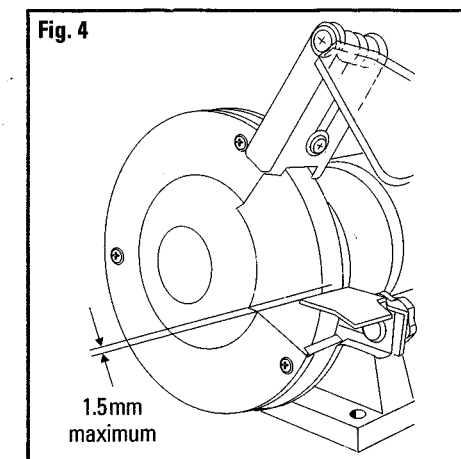


Fit the tool rest along the side edge of the wheel guard. Pass the small coach bolt through the guard and tool rest as per the diagram.

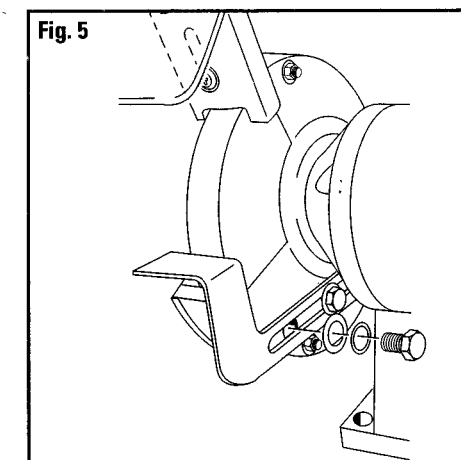
Fit the large flat washer followed by the shakeproof Washer and then the plastic adjusting knob.

Prior to tightening the knob, move the tool rest to ensure a gap between the wheel and the tool rest does not exceed 1.5mm. Firmly tighten by hand the adjusting knob to secure the tool rest.

Repeat for the opposite grinding wheel.



## Models BG6150 and BG6200



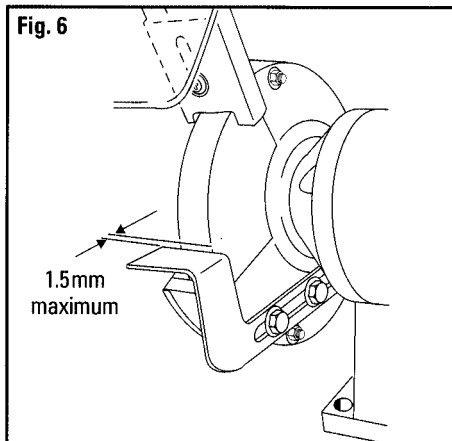
Remove the two large bolts on the inside edge of the grinding wheel guard.

Place the tool rest along the grinding wheel guard and align the long slot in the tool rest with the holes from where the two bolts were removed. Replace the two screws and washers as per the diagram finger tight.

**NOTE:** The grinder is supplied with a left hand and a right hand tool rest. Ensure the tool rests are fitted to the correct side of the grinder. When the tool rest is fitted as above, the tool rest should extend across the front face of the grinding wheel.

Prior to tightening the two bolts, move the tool rest to ensure a gap between the wheel and the tool rest does not exceed 1.5mm. Firmly tighten with a 12mm spanner the two bolts to secure the tool rest.

Repeat for the opposite grinding wheel.



## Mounting the Grinder

It is recommended that the grinder be secured to a work bench for safe operation.

The rubber feet will assist to minimise vibration but the grinder should be firmly mounted to a bench or similar device.

The base of the grinder is fitted with 4 x 7mm mount holes. 6mm screws or bolts should be used to mount the grinder (not supplied with unit).

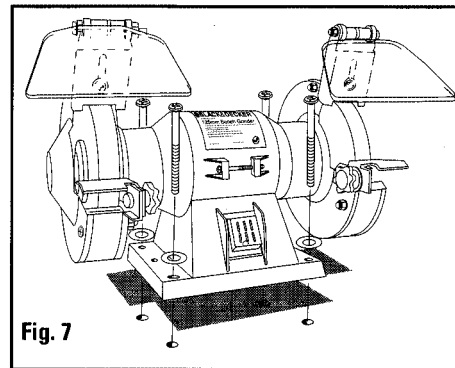
Where the grinder is to be mounted to a metal work bench, it is recommended the grinder be mounted to a piece of timber which in turn should then be mounted to the bench. This further reduces vibration and noise during use.

**IMPORTANT:** Ensure the surface where the grinder is to be mounted is clean and flat.

Ensure to tighten the four screws/bolts evenly.

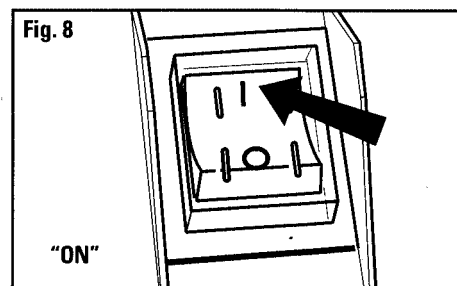
Do not over tighten.

A template is supplied at the end of this manual (Page 9) to assist with the hole spacing for mounting the grinder.

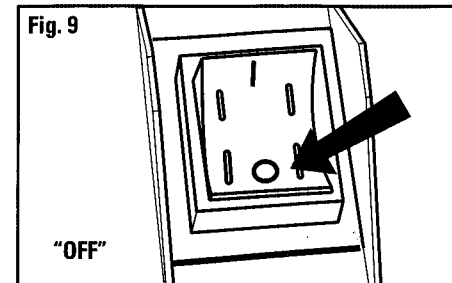


## To Turn the Grinder 'ON / OFF'

The Grinders covered in this manual are fitted with an 'On / Off' Rocker switch located centrally on the front of the base of the grinder.



To turn the grinder 'On' press the top of the Rocker switch marked 'I'.



To turn the grinder 'Off' press the bottom of the rocker switch Marked 'O'.

## Operation

Prior to operating the bench grinder, ensure the eyeshields and tool rests are correctly fitted and adjusted, the grinder is firmly attached to the work bench and your safety glasses are on.

Rotate the grinding wheel by hand to ensure the wheel rotates freely.

Turn the grinder on and allow the motor to obtain full speed.

**Note:** Stand to one side if it is the first time operation. Allow the grinder to run at full speed for 1 - 2 minutes.

Hold the work piece firmly against the tool rest and feed the work smoothly and evenly into the grinding wheel. Move the work piece across the full front surface of the wheel to prolong the life and flat surface of the wheel.

If the wheel slows down in speed remove the work piece and allow the motor to return to full speed.

**CAUTION:** The grinding wheels fitted to the grinders covered in this manual are designed to be used on the front face only. Do not grind or apply pressure to the side faces of these wheels.

Ensure to hold small pieces firmly with pliers or similar devices.

Grinding will cause heating to the part being ground. Handle the parts with care. The part being ground may need to be kept cool by

constantly dipping the part in coolant or water. Do not apply coolants or water to the grinder or grinding wheel.

## Changing the Grinding Wheels

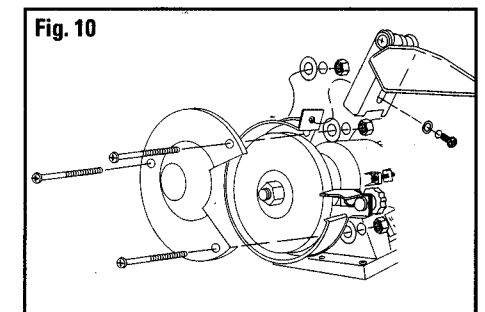
Over time the grinding wheels will need to be replaced, or a grinding wheel replaced with a wire wheel.

Prior to changing the grinding wheels ensure:

- The grinder is turned off and the power plug is removed from the socket
- The new grinding wheel or accessory is rated at 3000 RPM or higher.

## To Remove the Grinding Wheel

Loosen the tool rest and fully slide the tool rest away from the wheel.



Remove the screw and the bracket retaining the eyeshield

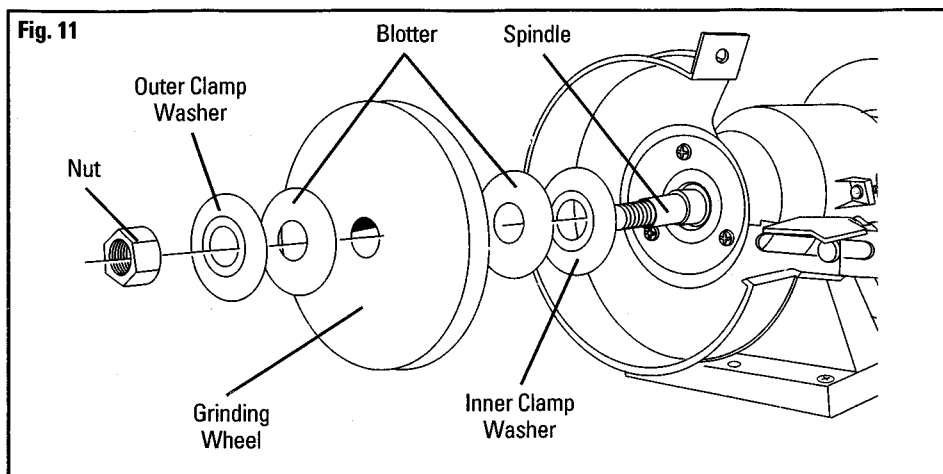
Remove the 3 bolts retaining the guard assy from around the wheel to be replaced and remove the outer guard.

Using a 19mm spanner remove the retaining nut, then the outer flange and the wheel.

**NOTE:** You will need to hold the grinding wheel firmly when removing the nut.

The thread on the left hand side of the grinder is a left hand thread and will need to be removed in a Clockwise direction. The thread on the right hand side of the grinder is a right hand thread and will need to be removed in a anti-clockwise direction.

## To Replace a Grinding Wheel



Check the wheel conforms to the Replacement Wheel Specifications and is rated at 3000RPM or above.

**Ensure the wheel is fitted with a blotter on both sides of the wheel and the surfaces are clean.**

Fit the wheel on to the shaft and against the inner clamp washer and blotter.

Fit the outer clamp washer to the shaft and up to the new grinding wheel blotter.

Replace the nut in the opposite direction to the details in the section "To Remove Grinding Wheel".

Tighten the nut with the 19mm spanner while holding the grinding wheel with your other hand.

Do Not over tighten the wheel.

Re fit the outer guard cover and the three retaining bolts (Fig. 10).

Re fit the eyeshield support bracket as per the instructions, "Fitting and adjusting the eyeshields".

Slide the tool rest. Ensure tool rest does not exceed 1-1.5mm from the wheel surface. Secure.

Rotate the wheel at least one full revolution to ensure the front wheel surface does not touch the tool rest.

Tighten the tool rest.

To test the grinder, again rotate the wheel by hand to ensure the adjustments of the tool rest and the eyeshield brackets are correct and the wheels rotate freely.

Plug the grinder into a 240V outlet and turn the grinder on, and allow the grinder to operate for 1 - 2 minutes at full speed.

**NOTE:** Ensure you are wearing safety glasses and you stand to one side of the grinder while the run up is occurring.

### Truing and Dressing

At times the grinding wheels may require dressing. This operation cleans and sharpens the front grinding surface of the wheels and also trues the wheel to prevent vibration.

**NOTE:** The wheel dresser is not part of the grinder and is not supplied as an accessory with the grinder.

Wheel Dressers are generally available at your local tool dealer.

To use the wheel dresser, follow the instructions supplied with the wheel dresser. However, follow the basic instructions as follows.

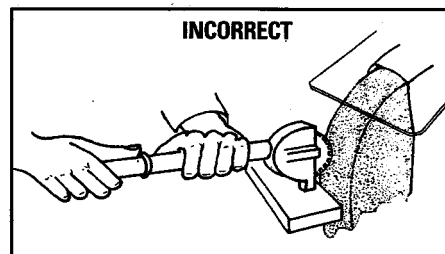
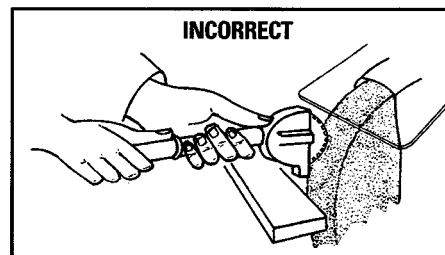
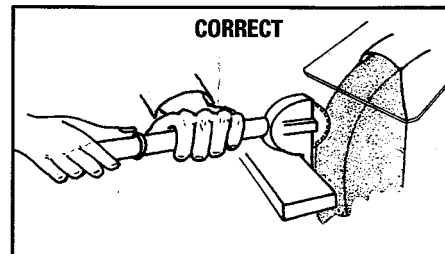
Adjust the tool rest away from the grinding wheel sufficiently to allow the heel of the dresser to locate between the tool rest and the wheel.

Start the grinder and move the dresser across the front surface of the wheel, applying sufficient pressure to dress the wheel.

After dressing the wheel re-adjust the tool rest to not exceed 1-1.5mm from the grinding wheel.

### Important

All adjustments to the grinder must be made with the grinder turned off. During dressing ensure to wear both a dust mask and also safety glasses. Observe the diagrams below and also follow the Wheel Dresser instructions.



## Maintenance

Prior to any cleaning or maintenance, ensure the power supply cable and plug is removed from the power supply.

Periodically the grinder should be cleaned of any build up of dirt, dust and grit. This can be performed with a dry clean rag or with the use of compressed air.

Ensure safety glasses are worn when cleaning down the grinder, especially where compressed air is used.

Never use solvents or harsh chemicals for cleaning the grinder.

## Lubrication

Your Black & Decker grinder uses sealed, pre-greased bearings, and follow up lubrication is not required.

Prior to turning the grinder "ON" the grinding wheel should be turned to ensure the motor is free to move. If when testing this operation the motor is hard to turn, the grinder should be sent to your nearest Black & Decker Service centre for service.

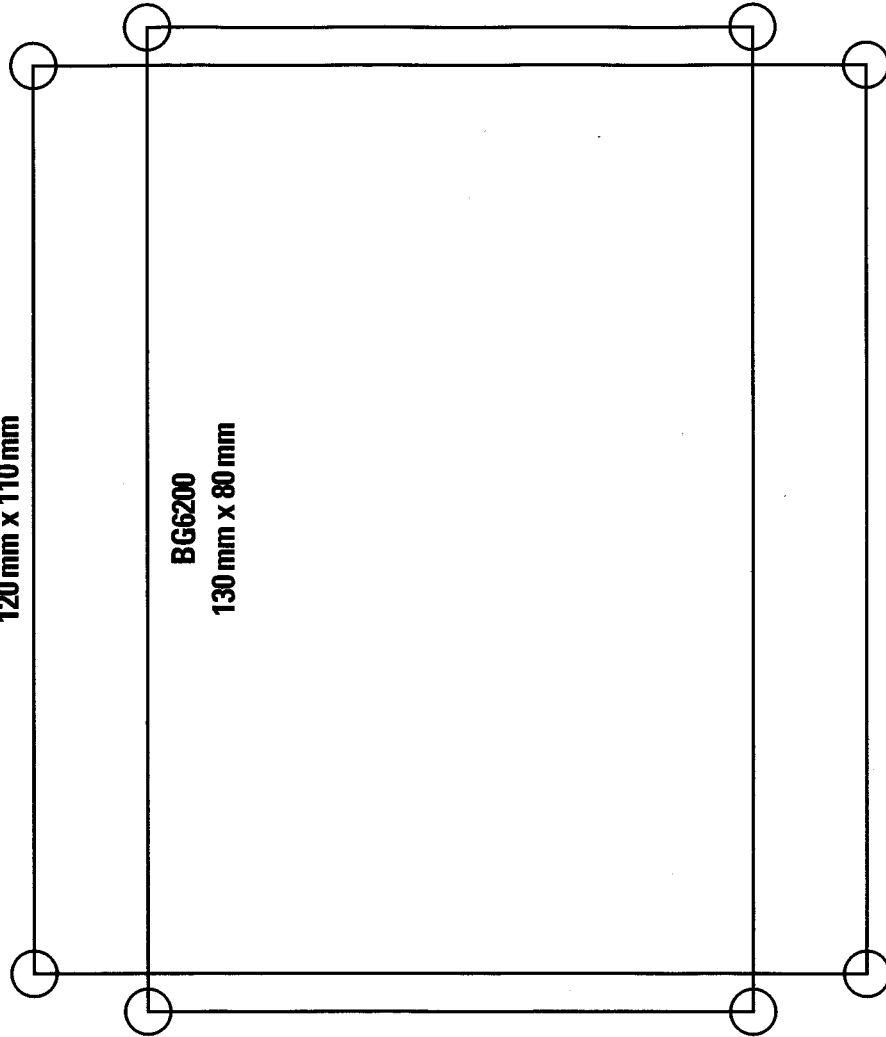
## Replacement Grinding Wheels

When replacing the grinding wheels on your Black & Decker Bench grinder, refer to the chart below for grinding wheel specifications.

Always check to ensure the replacement wheels are rating to a minimum of 3000RPM. It is recommended that Black & Decker replacement grinding wheels are fitted.

Model	Part No.	Grit	Diam.	Bore	Width
BG5120	BD53616	36	125mm	12.7mm	16mm
BG5120	BD56016	60	125mm	12.7mm	16mm
BG6150	BD63616	36	150mm	12.7mm	16mm
BG6150	BD66016	60	150mm	12.7mm	16mm
BG6200	BD63620	36	150mm	12.7mm	20mm
BG6200	BD66020	60	150mm	12.7mm	20mm

**BG5120 and BG6150**  
**120 mm x 110 mm**



Part No. 764248-00

AUSTRALIA / NEW ZEALAND

# **BLACK&DECKER® AUSTRALIA / NEW ZEALAND**

**DO NOT MAIL THIS CARD TO BLACK & DECKER. RETAIN THIS CARD IN CASE OF A CLAIM.**

## **Upon Purchase**

Fill in the Warranty Registration Section of the card and attach your purchase receipt to the top corner of the card. Retain in case of claims in future

## **MAKING A CLAIM**

Take your defective product together with the Warranty Registration Card and purchase receipt to the place of purchase. You can do this either in person or send by freight. If mailing or shipping your appliance, ensure to remove all water and pack it carefully in a sturdy carton with enough packing material to prevent damage.

ATTACH  
RECEIPT HERE

## **AUSTRALIA**

Black&Decker (Australia) PTY.LTD.  
20 Fletcher Road  
Mooroodbark 3138  
Victoria Australia  
Tel: (61 3)8720 5100  
Fax: (61 3)9727 5940

Service Department:  
Tel: 1800-654-155

## **For Repair or Service**

See Electric Tools -Retail and/or Repairs  
section of Yellow Pages.



## **NEW ZEALAND**

Black&Decker New Zealand  
5 Te Apunga Place  
MT WELLINGTON NEW ZEALAND  
Tel: 64 9 259 1111  
Fax: 64 9 259 1122