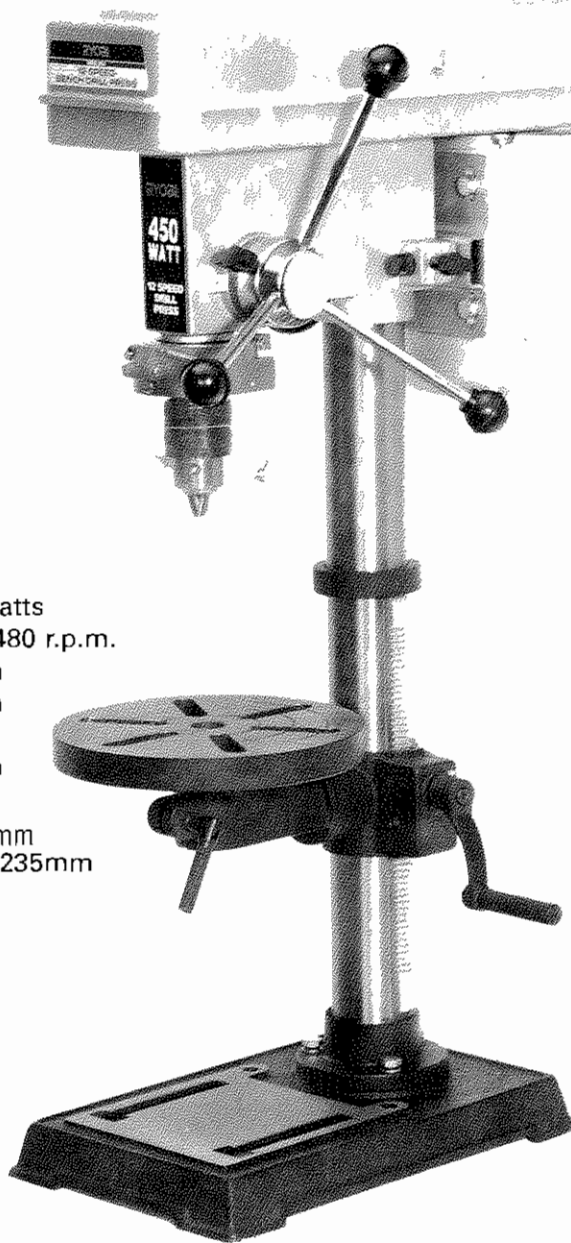


RYOBI®

OWNER'S OPERATING MANUAL 12 SPEED BENCH DRILL PRESS MODEL BD12



SPECIFICATIONS:

Power Input	450 watts
No Load Speed	230-3480 r.p.m.
Drilling Capacity	16mm
Chuck Capacity	16mm
Spindle Taper	MT2
Spindle Travel	60mm
Spindle Speeds	12
Table Size	Ø220mm
Base Size	355 x 235mm
Net Weight	38 kg



THANK YOU FOR BUYING A RYOBI DRILL PRESS

Your new Drill Press has been engineered and manufactured to Ryobi's high standard for dependability, ease of operation, and operator safety. Properly cared for, it will give you years of rugged, trouble free performance.



CAUTION: Carefully read through this entire owner's manual before using your Drill Press

Pay close attention to the Rules for Safe Operation, Warnings, and Cautions. If you use your Drill Press properly and only for what it is intended, you will enjoy years of safe, reliable service.

Thank You again for buying Ryobi tools.

SAVE THIS MANUAL FOR FUTURE REFERENCE.

RULES FOR SAFE OPERATION

The purpose of safety rules is to attract your attention to possible dangers. The safety symbols and the explanations with them, require your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instruction or warnings they give are not substitutes for proper accident prevention measures.



SAFETY ALERT SYMBOL

Indicates caution or warning. May be used in conjunction with other symbols or pictures.

WARNING: Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.

IMPORTANT: Servicing of a tool with double insulation requires extreme care and knowledge of the system and should be performed only by a qualified service technician. For service we suggest you return the tool to your nearest Ryobi Authorised Service Centre for repair. When servicing, use only identical Ryobi replacement parts.

WARNING: Do not attempt to operate this tool until you have read thoroughly and understood completely, safety rules, etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock or serious personal injury. Save owners manual and review frequently for continuing safe operation and instructing others who may use this tool.



The operation of any tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eye glasses or standard safety glasses with side shields.

- 1. KNOW YOUR POWER TOOL.** Read owners manual carefully. Learn its applications and limitations as well as the specific potential hazards related to this tool.
- 2. GUARD AGAINST ELECTRICAL SHOCK BY PREVENTING BODY CONTACT WITH GROUNDED SURFACES.** For example, pipes, radiators, ranges, refrigerator enclosures.
- 3. KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- 4. AVOID DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations or expose to rain. Keep work area well lit.
- 5. KEEP CHILDREN AND VISITORS AWAY.** Visitors should wear safety glasses and be kept a safe distance from work area. Do not let visitors contact tool or extension cord.
- 6. STORE IDLE TOOLS.** When not in use, tools should be stored in a dry and high or locked-up place, out of reach of children.
- 7. DON'T FORCE TOOL.** It will do the job better and safer at the rate at which it was designed.
- 8. USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool. Don't use tool for purpose not intended.
- 9. DRESS PROPERLY.** Do not wear loose clothing or jewellery. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Also wear protective hair covering to contain long hair.

- 10. ALWAYS WEAR SAFETY GLASSES.** Everyday eyeglasses have only impact resistant lenses, they are not safety glasses.
- 11. PROTECT YOUR LUNGS.** Wear a dust mask if operation is dusty.
- 12. PROTECT YOUR HEARING.** Wear hearing protection during extended periods of operation.
- 13. DON'T OVERREACH.** Keep proper footing and balance at all times. Do not use tool on a ladder or unstable support. Secure tools when working at elevated levels.
- 14. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories.
- 15. DISCONNECT TOOLS.** When not in use, before servicing, or when changing attachments, blades, bits, cutters, etc. all tools should be disconnected.
- 16. REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 17. NEVER USE IN AN EXPLOSIVE ATMOSPHERE.** Normal sparking of the motor could ignite fumes.
- 18. KEEP HANDLES DRY, CLEAN AND FREE FROM OIL AND GREASE.** Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum based products, or any strong solvents to clean your tool.
- 19. STAY ALERT AND EXERCISE CONTROL.** Watch what you are doing and use common sense. Do not operate tool when you are tired. Do not rush.
- 20. CHECK DAMAGED PARTS.** Before further use of the tool, a guard or any other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or any other part that is damaged should be properly repaired or replaced by an authorised service centre.
- 21. DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF.** Have defective switches replaced by authorised service centre.
- 22. DO NOT OPERATE THIS TOOL WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR ANY MEDICATION.**
- 23. SUPPLY CORD.** If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or similarly qualified person in order to avoid a hazard.

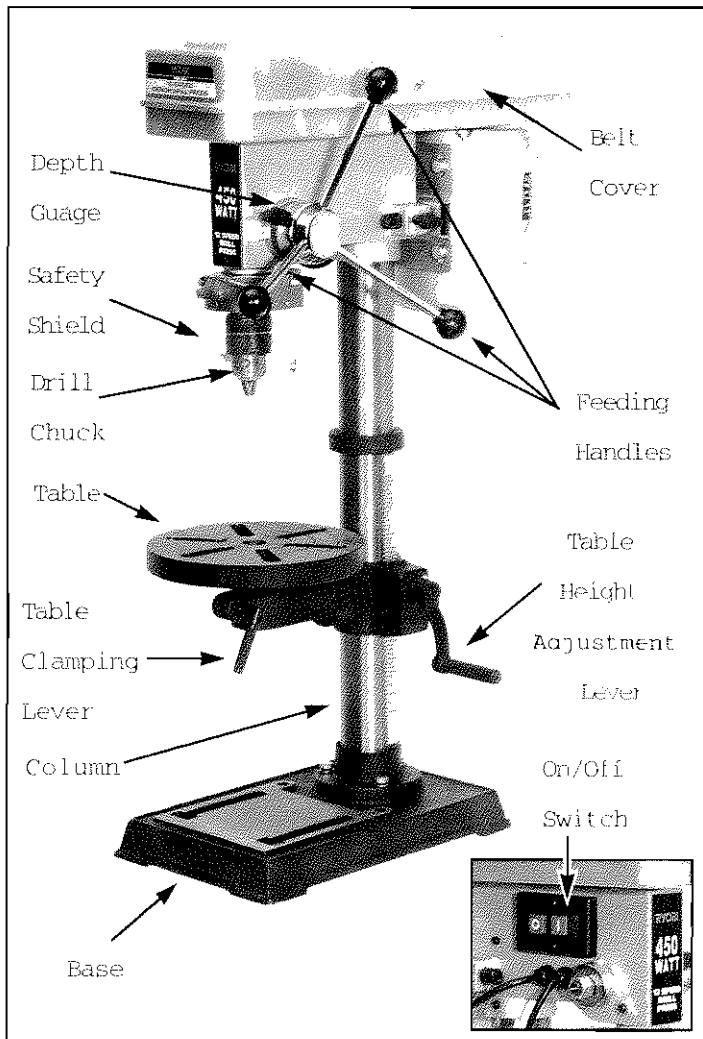
WARNING: Before using the drill press ensure that it is firmly bolted to a work bench. Failure to adhere to this warning could result in serious personal injury.

Due to Ryobi's continued product refinement policy, product features and specifications can and will change without notice. Check current features and specifications with your Ryobi retailer.

SAVE THESE INSTRUCTIONS

SPECIFIC SAFETY RULES FOR BENCH DRILLS

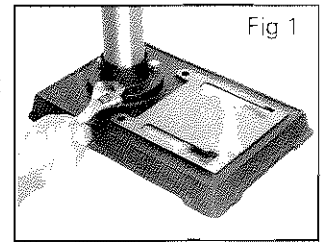
1. Read the instruction manual before operating the bench drill.
2. Safety glasses should be worn.
3. Do not wear loose clothing.
4. Keep work area clean.
5. Do not operate the bench drill until it is completely assembled and installed according to the instructions.
6. Before turning on ensure belt guard is down and the chuck is installed correctly.
7. Remove adjusting keys and wrenches before turning on power.
8. Ensure the chuck key is removed from the chuck before turning on the power.
9. Ensure the drill bit is securely locked in the chuck using the key supplied.
10. Use recommended speed for drill bit size and workpiece material.
11. Keep belt guard in place while machine is in operation.
12. Use only recommended accessories.
13. Disconnect tool before changing drill bit and ensure switch is in the off position before plugging in.
14. Do not use bench drill in damp or wet conditions.
15. Do not overload tool.
16. Keep tool well maintained.
17. Never leave tool running unattended.
18. Adjust the table or depth stop to avoid drilling into the table.



ASSEMBLY

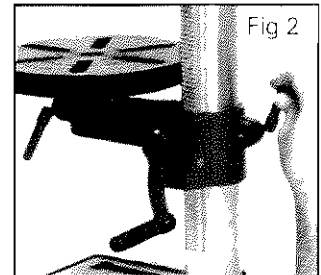
ASSEMBLE THE COLUMN

Place column assembly on base and align holes in column support with holes in base. Secure the column with the 3 bolts provided. (Fig 1)



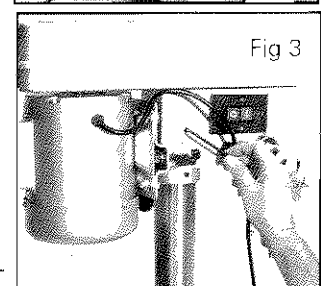
INSTALL TABLE

Slide the table assembly onto the column at required height and lock into place with clamping lever. (Fig 2)



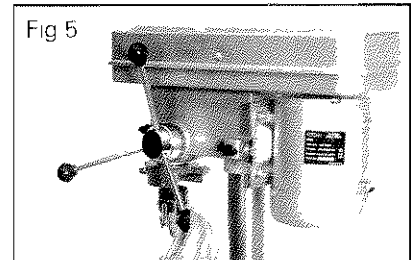
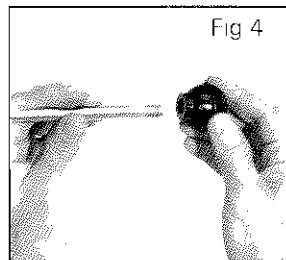
ATTACH HEAD TO COLUMN

Carefully put the head assembly over column and slide it onto column into position. Align head frame with table and base. Fix the 2 set screws into left side of head to lock head into position then tighten with alien key provided. (Fig 3)



INSTALL THE FEEDING HANDLES

- Screw the knobs to the feeding handles (Fig 4).
- Screw feeding handles into hub of pinion shaft (Fig 5)

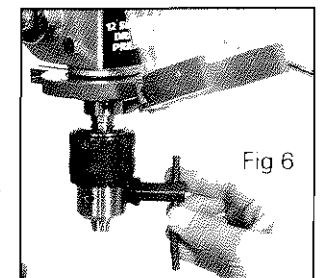


ATTACH THE CHUCK

Slide table up and secure it approx. 75mm from the tip of the spindle.

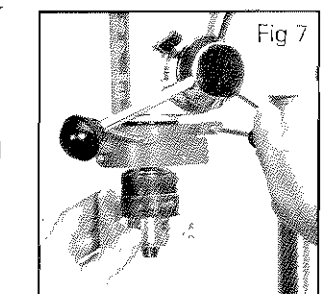
Slide short end of arbor into chuck. Place long end inside spindle.

Open chuck jaws completely by turning chuck key anticlockwise to the end. (Fig 6) Put a piece of scrap wood on the table to protect chuck nose. Pull feeding handle down pressing the chuck against the scrap wood until arbor is secure on the spindle.



ATTACH THE SAFETY SHIELD

Slide safety shield clamp onto upper part of chuck assembly and secure with screw (Fig 7)

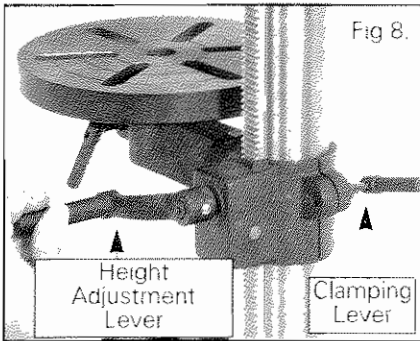


ADJUSTMENTS

TABLE ADJUSTMENT

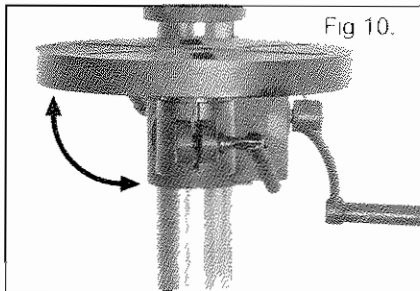
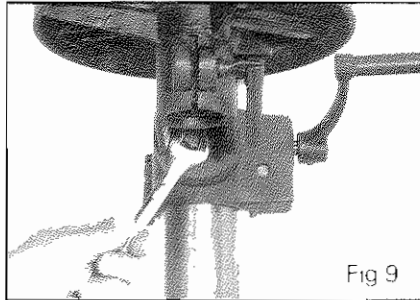
Height Adjustment:

To adjust the height of the table up or down, loosen the clamping lever, then adjust the table to desired position by rotating the height adjustment lever and re-tighten clamping lever securely. (Fig 8)



Tilting Adjustment:

Loosen pivot bolt with a spanner. Tilt table to desired angle up to 45° and re-tighten pivot bolt. (fig 9&10)

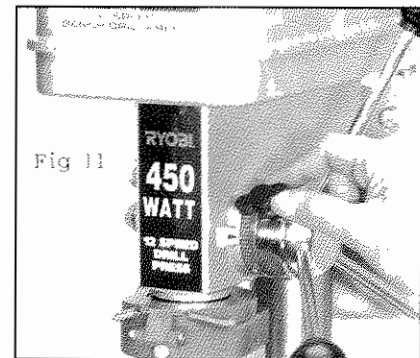


DEPTH ADJUSTMENT

(Fig 11)

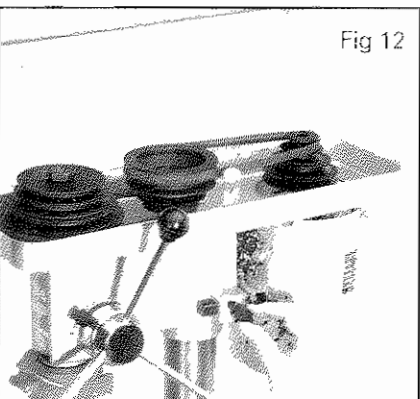
A. Feed Depth Adjustment:

Loosen scale set knob on feed shaft assembly. Rotate spindle gauge to desired depth and retighten scale set knob.



B. Stationary Depth

Loosen scale set knob. Turn feed shaft to lowest point then rotate spindle depth to desired depth and retighten scale set knob



SPEED ADJUSTMENT:

(Fig 12)

Open pulley cover and loosen the slide bar knob as shown in fig 12. Slide motor toward front of drill press and tighten the slide bar knob.

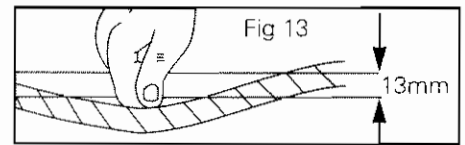
Relocate the belts to the correct pulleys for the required spindle speeds. (see speeds chart)

Loosen slide bar knob and slide motor toward rear of drill press and tighten the slide bar knob.

Belt Tension Adjustment:

To gauge proper belt tension, use pressure to push down with the thumb on the belt at midway point between the two pulleys. The belt should push down no more than 13mm.

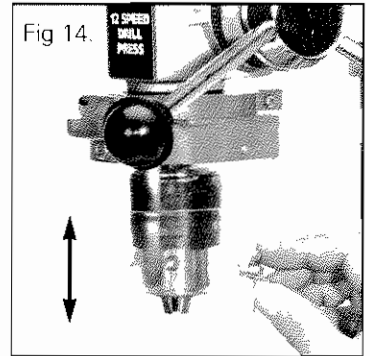
(Fig 13)



EYE SAFETY SHIELD

Your Ryobi drill press comes with an adjustable eye safety shield to protect the operator. The shield can be adjusted up or down by loosening the 2 wing nuts as illustrated.

(Fig 14)



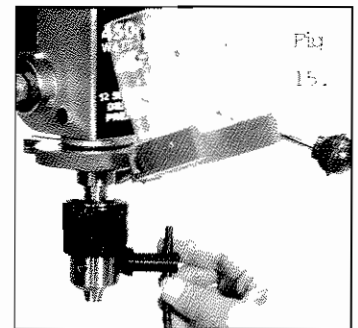
WARNING Always ensure eye safety shield is in place before commencing any operation. Failure to do so can result in foreign objects being thrown in your eyes causing serious injury

■ INSTALLING DRILL BITS

Open chuck jaws with chuck key. (Fig 15)

Insert drill bit into chuck jaws approx. 25mm.

When using a small drill bit do not insert it so far that the jaws touch the arbor of the drill. Make sure that the drill bit is centred in the chuck before tightening the chuck with the key. Tighten all 3 holes.



The proper drill speed for a given drill bit size is as follows:

DRILL DIA (mm)	STEEL	CAST IRON	METAL ALUMINIUM	PLASTIC	WOOD
ROTATIVE SPEED R.P.M.					
3	2500	2500	2500	2500	2500
4	2500	2500	2500	2500	2500
5	1750	2500	2500	2500	2500
6	1750	2500	2500	2500	2500
7	1250	1750	2500	2500	2500
8	1250	1750	2500	2500	2500
9	900	1250	1750	2500	2500
10	900	1250	1750	1650	2500
11	625	900	1250	1250	1750
12	625	900	1250	1250	1750
13	625	625	900	1250	1750



WARNING Do not attempt to start your drill press until all parts have been assembled as instructed. Failure to do so can result in serious personal injury

OPERATION

■ **DRILLING** Use clamps to hold the workpiece when drilling. The workpiece should never be held by hand as the lips of the drill may seize the workpiece at any time, especially when breaking through the stock.

If the workpiece is whirled out of the operators hand, injury may occur.

For flat work, lay the workpiece on a wooden base and clamp it firmly down against the table to prevent it from turning.

Using Vice For small workpieces that can not be clamped to the table, use a drill press vice (not included). The vice must be clamped or bolted to the table.

Positioning Workpiece

Always place a piece of wood on the table. This will prevent splintering or making heavy burrs on the underside of the workpiece as the drill breaks through. The wood must contact the left side of the column.

Round-Out Tolerance

For drilling operations requiring close tolerances, place drill blank into chuck and check run out with a dial indicator. If the run out is not within desired tolerance, tap the chuck bottom with a rubber mallet until you get the desired tolerance.

MAINTENANCE

Frequently blow out any dust that may accumulate inside the motor.

A coat of automobile type wax applied to the table and column will help to keep the surface clean.

If the power cord is damaged in any way, have it replaced immediately.

■ **LUBRICATION** All of the ball bearings are packed with grease at the factory. They require no further lubrication.

TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	REMEDY
Noisy Operation	A) Incorrect belt tension B) Dry spindle C) Loose pulley D) Bad bearing	A) Adjust tension B) Remove spindle/quill assembly lubricate C) Tighten pulley D) Replace bearing
Excessive Drill Wobble	A) Loose chuck B) Worn spindle shaft or bearing C) Bad chuck	A) Tighten by pressing chuck down against table B) Replace spindle shaft or bearing C) Replace chuck
Motor Won't Start	A) Power Supply B) Motor connection C) Switch connections D) Motor windings burned E) Bad switch	A) Check power cord B) Check motor connection C) Check switch connections D) Replace motor E) Replace switch
Drill Binds in Workpiece	A) Excessive pressure on feed handle B) Loose belt C) Loose drill D) Speed too fast	A) Apply less pressure B) Check belt tension C) Tighten chuck with chuck key D) Change speed
Drill Burns or Smokes	A) Incorrect speed, slow down RPM B) Chips are not discharging C) Dull drill or not cut properly for material D) Needs lubrication E) Feed pressure wrong	A) Refer to speed chart B) Clean drill C) Check sharpness and taper D) Use lubrication while drilling E) Apply less pressure
Table Difficult to Raise	A) Needs lubrication B) Table lock tightened	A) Lubricate with light oil B) Loosen clamp

RYOBI POWER EQUIPMENT **WARRANTY**



Subject to the warranty condition below, this Ryobi tool (hereinafter called "the product") is warranted by Ryobi (hereinafter called "the Company") to be free from defects in material or workmanship for a period of 12 months from the date of original purchase covering both parts and labour. Under the terms of this warranty, the repair or replacement of any part shall be the opinion of the Company or its authorised agent. Should service become necessary during the warranty period, the owner should contact the Authorised Ryobi Retailer from whom the Product was purchased, or the nearest Company Branch Office. In order to obtain warranty service, the owner must present the sales docket and Warranty Certificate to confirm date of purchase. This product is sold by the dealer or agent as principal and the dealer has no authority from the Company to give any additional warranty or guarantee on the Company's behalf except as herein contained or herein referred to.

Warranty Conditions

This warranty only applies provided that the Product has been used in accordance with the manufacturer's recommendations under normal use and reasonable care (in the opinion of the Company) and such warranty does not cover damage, malfunction or failure resulting from misuse, neglect, abuse, or used for a purpose for which

it was not-designed or is not suited; and no repairs, alterations or modifications have been attempted by other than an Authorised Service Agent. This guarantee will not apply if the tool is damaged by accident or if repairs arise from normal wear and tear.

The Company accepts no additional liability pursuant to this warranty for the costs of travelling of transportation of the Product or parts to and from the service dealer or agent - which costs are not included in this warranty.

Certain legislation, including the Trade Practices Act, 1974 (as amended) and other state and territorial laws give rights to the buyer and impose liability on the seller in certain circumstances. Nothing herein shall have the effect of excluding, restricting or modifying any condition, warranty, right or liability imposed, to the extent only that such exclusion, restriction or modification would render any term herein void.

RYOBI

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Phone: (03) 9764 8655

HOBART: All Enquiries Phone: 1300 360 216

ADELAIDE: All Enquiries Phone: 1300 360 216

PERTH: 33-35 Sorbonne Crescent, Canning Vale,
WA, 6155, Phone: (08) 9455 7775

RYOBI NEW ZEALAND LIMITED

Auckland: 503 Mt Wellington Highway,
Mt Wellington, NZ, Phone: (09) 573 0230

THIS WARRANTY FORM SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

For your record and to assist in establishing date of purchase (necessary for in-warranty service) please keep your purchase docket and this form completed with the following particulars.

PURCHASED FROM _____

ADDRESS OF DEALER _____

DATE _____ **MODEL NO** _____ **SERIAL NO** _____

Present This Form With Your Purchase Docket When Warranty Service Is Required