



**DIE GRINDER LONG
NOSE VARIABLE SPEED
750W**



TSDG01

www.thetoolshed.co.nz

TABLE OF CONTENTS

Product Details.....3
Specifications.....4
Product Identification.....4
Safety Guidelines.....5
Function Description.....9
Assembly.....10
Operation.....10
Maintenance.....11
Exploded Parts List.....12

Thank You

For the purchase of this ToolShed product. We try our hardest to supply customers like you with the best quality products available, at the best price possible. We cant wait to continue working together in the future.

Please contact us for any servicing, replacement parts, or questions you might have about your ToolShed product by visiting our website, or calling: 0800 948 665.

PRODUCT DETAILS

<i>Product Model</i>	<i>ToolShed Die Grinder Long Nose Variable Speed 750W</i>
<i>Product Code</i>	<i>TSDG01</i>

DISTRIBUTED BY:



Note:

This manual is for your reference only. Due to the continuous improvement of the ToolShed products, changes may be made at any time without obligation or notice.

Warranty:

This product may be covered under The ToolShed warranty. For more information, see our Terms & Conditions at www.thetoolshed.co.nz

SPECIFICATIONS

Power	750 Watts
Collet Size	6mm (Supplied)
No load speed	10000–30000RPM
Overall Length	370mm
Net Weight	1.9kg

PRODUCT IDENTIFICATION



- 1 Collet Nut
- 2 Ventilation Openings
- 3 ON/OFF Switch
- 4 Variable Speed Dial (Not Shown)
- 5 Power Cable
- 6 Wrench #17
- 7 Wrench #13
- 8 Replacement Carbon Brushes
- 9 6mm Collet

SAFETY GUIDELINES



WARNING

READ ALL SAFETY WARNINGS & INSTRUCTIONS. Failure to follow instructions and warnings could lead to serious injury, electric shock, or fire.

Work Area Safety

- **Ensure that your work area is kept clean and well lit.** Lack of visibility and clutter greatly increase the risk of accident when using tools.
- **Keep bystanders, pets, and children clear when operating this power tool or machine.** They can cause distraction or risk injury to themselves.
- **Ensure you are not operating the power tool or machinery in the presence of dust, liquids, flammable gases, or anything that can create an explosive atmosphere.** Power tools and machinery can create sparks which can lead to ignition and fire hazards in working environments.

Personal Safety

- **Always wear personal protective equipment (PPE).** Eye protection, ear protection, dust masks, and other protective equipment will help to reduce the risk of personal injury or long-term illnesses.
- **Dress appropriately. DO NOT wear loose clothing that can get caught in moving parts.** Keep hair, loose clothing, jewellery, and anything else that could be of risk, away

from moving parts in the machine, or they could become caught therein.

- **Always remain alert and DO NOT operate power tools or machinery under the influence of any substances such as alcohol or drugs, including prescription medications.** Lack of focus could lead to injury or accidents while operating these power tools and machinery.
- **Always ensure proper footing and balance.** Overreaching can lead to slipping and falling which can result in injury or accident.
- **Ensure the power switch is in the OFF position before connecting any battery, or power source to the power tool or machinery.** This can cause injury as tools and machinery can suddenly fire incidentally when live, causing accidents.
- **Use all provided dust collection and extraction attachments, if included.** This equipment, along with the use of PPE dust masks, can help keep you safe from dust, and keep your work site clear from hazards.
- **Ensure loose parts such as wrenches or adjusting keys are removed before starting the power tool or machinery.**

SAFETY GUIDELINES

Electrical Safety

- **DO NOT use the power tool or machinery in rainy conditions or wet areas where the power tool or machinery could get wet.** Water in this power tool or machinery can lead to electric shock.
- **Only use the power tool or machinery when the plug correctly matches the power outlet.** Modifying plugs greatly increases the risk of electric shock.
- **Keep the power cord away from anything that could damage it such as sharp edges, moving parts or heat.** A damaged power cord increases the risk of electric shock.
- **Only operate outdoors with the use of an outdoor extension lead.** Not all extension leads are suited to outdoor use and using one which is not can greatly increase the risk of electric shock.
- **Avoid body contact with grounded or earthed surfaces.** Surfaces such as radiators, ranges, pipes, and refrigerators can increase the risk of electric shock due to your body being earthed or grounded.
- **Never carry the power tool by the cord, or yank the cable from the power outlet.** This can damage the internal wiring and may become a hazard.



WARNING

Electric shock can cause serious injury or, in some cases be fatal.

Power Tool & Machinery Use & Care

- **Use the correct tool for the job.** Forcing a tool to do a job it was not designed for increases the risk of accident or injury.
- **Disconnect tools and machinery from power, or remove batteries before doing any maintenance or adjustments, or before storing the tools and machinery.** This reduces or removes the risk of a power connection that causes the tool or machinery to accidentally fire, which can help prevent injury or accident.
- **Check the general condition of the power tool for damage or any problems that could affect the way the tool or machine works.** An unrepaired tool or machine can lead to accident and injury. Only have your tool or machine repaired with genuine parts from The ToolShed.
- **Only use the power tool and machinery with genuine parts or accessories that are designed to be used with this power tool and machinery.** Failure to do so could result in accident or injury, or damage your tool or machinery.
- **Store your tool or machinery out of reach of children, and away from untrained personnel when not in use.** Use by somebody untrained, or a child, could lead to accident or serious injury.

SAFETY GUIDELINES

Service

- **Have your tools and machinery serviced at The ToolShed with ToolShed replacement parts.** This will ensure that the safety of the power tool or machine is maintained.



WARNING

The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Always Use Common Sense

- It is not possible to cover every conceivable situation you can face. Always exercise care and use your common sense. If you get into a situation where you feel unsafe, stop and seek expert advice. Contact your dealer, service agent, or an experienced user. Do not attempt any task you feel unsure of!
- **Do not let familiarity gained from the frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Die Grinder Specific Safety

- Always use eye and ear protection. Other PPE such as dust masks, gloves, helmets, and protective aprons are recommended.
- Use only wheels with correct size and wheels that have a maximum operating speed at least as high as the highest No Load Speed marked on the tools nameplate (30000RPM).
- Check the wheel carefully for cracks or damage prior to operation., Replace any cracked or damaged parts immediately.
- Prior to using the tool on your workpiece, test run the Die Grinder at the highest RPM for at least 30 seconds in a safe environment. Stop immediately if there is any vibration or wobbling that could indicate poor installation or a poorly balanced wheel. Check the tool to determine the cause.
- Ensure your workpiece is properly secured.
- Hold the Die Grinder by its insulated gripping surfaces when performing an operation where the tool may contact hidden wiring, or its own cord. Contact with a live wire will shock the user.
- Ensure the wheel is not in contact with the workpiece before turning the tool on.
- Watch for flying sparks. Hold the tool so that sparks will fly away from you other persons, or flammable materials.
- Pay attention after turning the tool off as the wheel will continue to rotate for a number of seconds.

SAFETY GUIDELINES

Die Grinder Specific Safety

- Always ensure you have a firm grip on the Die Grinder.
- Keep hands and body parts away from the rotating parts of the Die Grinder.
- Do not leave the tool running unattended. Always ensure you are holding the Die Grinder firmly if it is switched on.
- Do not touch the workpiece immediately after operation. It may be extremely hot and can cause burns to your skin.
- Always ensure you have firm footing while using the tool. Be sure there is no one beneath you when using the tool in elevated positions.
- Do not use the Die Grinder on any materials containing Asbestos - this can be extremely harmful to your health if inhaled.
- Do not use water or a grinding lubricant with this tool.
- Do not use this tool as a cutter.
- Ensure the ventilation openings on the tool are kept clear when working in dusty conditions. If it should become necessary to clear dust, first disconnect the Die Grinder from its power supply and avoid damaging internal parts.

FUNCTION DESCRIPTION

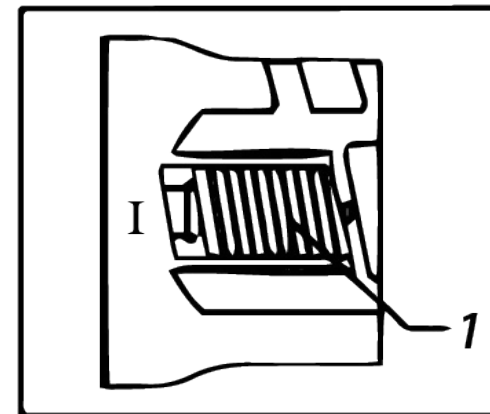


CAUTION

Always ensure that the tool is switched off and unplugged before adjusting or checking the function of the Die Grinder.

Switch Action

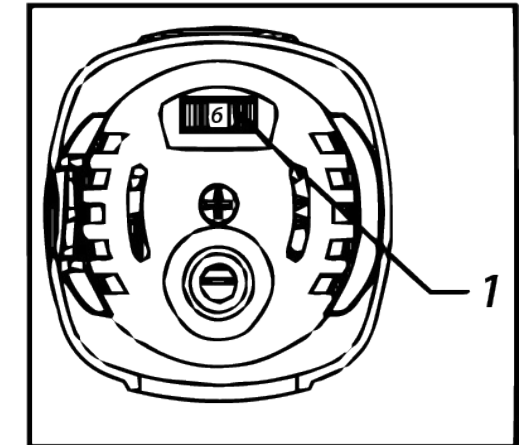
- To start the Die Grinder, slide the switch towards the "I" (ON) position. For continuous operation, depress the top of the slide switch to lock it in the ON position.
- To stop the tool, press the rear of the slide switch, then slide it toward the "O" (OFF) position.



1: Slide Switch

Variable Speed Adjusting Dial

- The Die Grinders speed can be adjusted using the variable speed dial located on the end of the tool, above the cable.
- The higher speeds are obtained when the dial is set towards the number 6. Lower speeds are obtained when the dial is towards the number 1. Refer to the table below for the relationship between the number settings and the approximate tool speed.



1: Variable Speed Dial

Dial Number	Tool Speed
1	8000–10,000 RPM
2	11,000–13,000 RPM
3	15,000–17,000 RPM
4	19,000–21,000 RPM
5	24,000–26,000 RPM
6	27,000–30,000 RPM



CAUTION

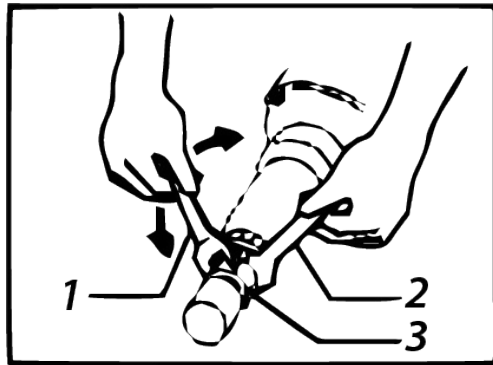
If the tool is operated continuously at low speeds for extended periods, the motor will get overloaded, resulting in tool malfunction.

The speed adjusting dial can be turned only as far as 6, and back to 1. Do not force it past 6 or 1, or the speed adjusting function may no longer work.

ASSEMBLY

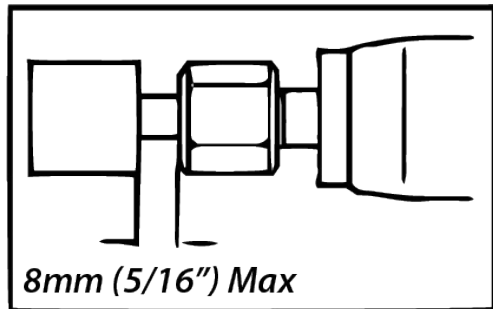
Installing/Removing the Wheel Point

- Loosen the collet nut and insert the wheel point into the collet nut. Use the smaller wrench to hold the spindle and the larger one to tighten the collet nut securely.



1: Wrench 17
2: Wrench 13
3: Collet Nut

- The wheel point should not be mounted more than 8mm from the collet nut. Exceeding this distance could cause vibration or a broken shaft. To remove the wheel point, follow the installation procedure in reverse.

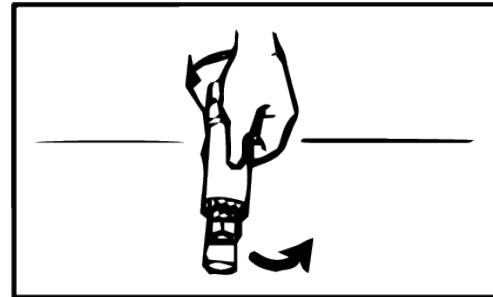


CAUTION

Use the correct collet cone for the wheel point which you intend to use.

OPERATION

- Turn the tool on without the wheel point making any contact with the workpiece and wait until the wheel point attains full speed. Then apply the wheel point to the workpiece gently. To obtain a good finish, move the tool primarily in the leftward direction slowly.



CAUTION

Only apply light pressure on the Die Grinder. Excessive pressure on the tool will only cause a poor finish and overloading of the motor.

MAINTENANCE

- Before cleaning or performing any maintenance, you must ensure the Die Grinder is switched off and disconnected from the power supply.
- Compressed air is the most effective way to clean this tool. Always wear PPE safety goggles when cleaning tools with compressed air.
- Check the carbon brushes of the machine in the event of excessive sparking.
- Ventilation openings and switch levers must be kept clean. DO NOT attempt to clean by inserting pointed objects through openings.
- Do not use harsh chemicals or solvents when cleaning this tool.
- If you discover any damaged or broken parts, consult your nearest ToolShed for replacements and advise.

TSDG01 EXPLODED VIEW & PARTS LIST

1	Nut
2	Chuck
3	Ball Bearing Cover
4	Wool Ring
5	Washer
6	Spindle
7	Ball Bearing 6001.2RS
8	Chuck Ring 12
9	Tapping Screw ST4×35 X4
10	Box
11	Ball Bearing 629.2RS X2
12	Joint 1
13	Bush
14	Joint 2
15	Washer 31.6×22.4×1
16	Bearing Rubber Ring
17	Gear Box Cover
18	Armature
19	Ball Bearing 607.2RS
20	Bearing Bush (607)
21	Baffle
22	Tapping Screw ST4×70 X2
23	Stator
24	Housing
25	Tapping Screw ST3×8 X2
26	Brush X2
27	Brush Holder X2
28	Wind Spring X2
29	Inductance X2
30	Rating Label
31	Capacitor 0.22μF
32	Switch
33	Switch Button
34	Brand Label
35	Switch Slide
36	Spring
37	Tapping screw ST4×14 X2
38	Cord Clamp
39	Ornamental Ring
40	Cord Sleeve
41	Rear Cover
42	Tapping screw ST4×16
43	Cord
44	Spanner X2
45	Box Sleeve
46	Magnetic Ring
47	Tapping screw ST3×8
48	Speed Controller

