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**DWE4887N**

Figure 1  
شکل 1

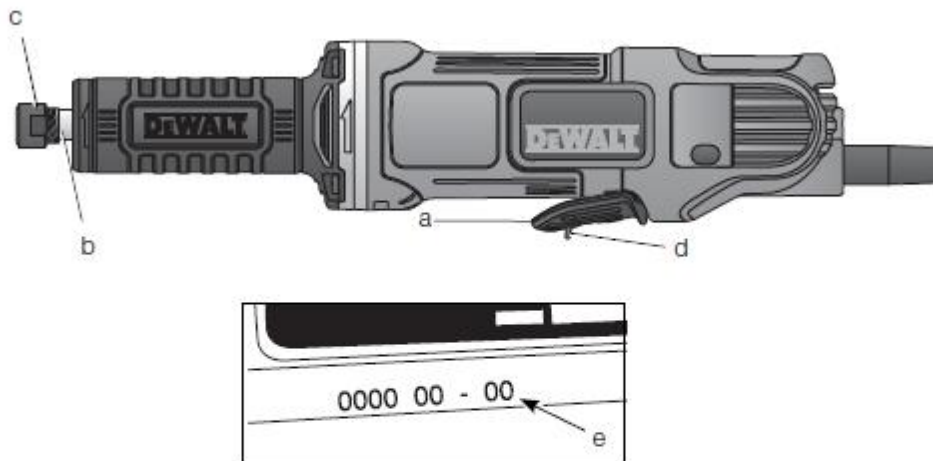


Figure 2  
شکل 2

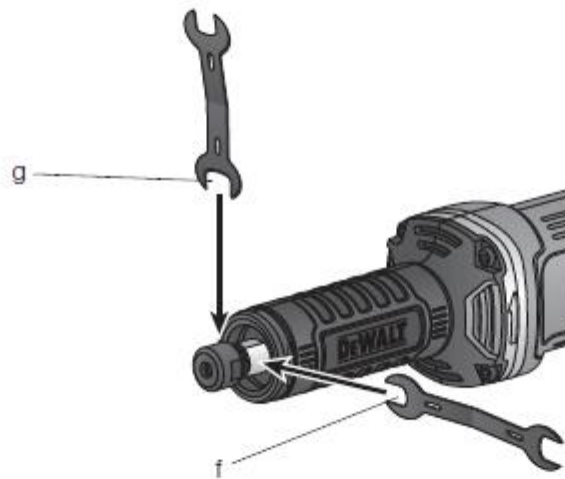


Figure 3  
شکل 3

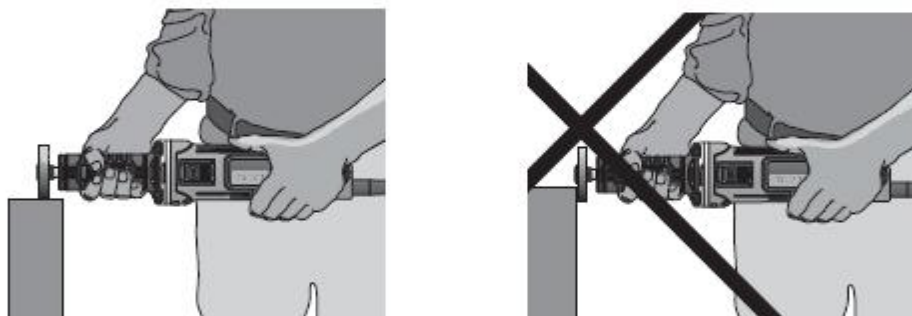
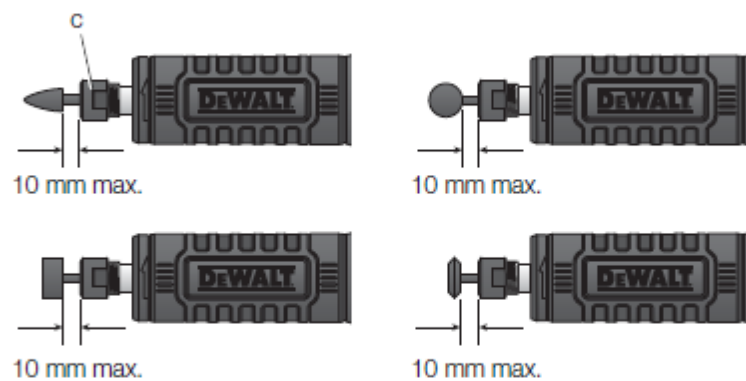


Figure 4

شكل 4



# DIE GRINDER

## DWE4887N

### Congratulations!

You have chosen a DEWALT tool. Years of experience, thorough product development and innovation make DEWALT one of the most reliable partners for professional power tool users.

### Technical Data

DWE4887N		
Voltage	V <sub>AC</sub>	220–240 127
Type		1
Power input	W	450
No load speed	min <sup>-1</sup>	25000
Maximum wheel diameter	mm	38
Spindle		M15
Collet size	mm	6
Weight	kg	1.6

### Definitions: Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.



**DANGER:** Indicates an imminently hazardous situation which, if not avoided, **will** result in **death or serious injury**.



**WARNING:** Indicates a potentially hazardous situation which, if not avoided, **could** result in **death or serious injury**.



**CAUTION:** Indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury**.

**NOTICE:** Indicates a practice **not related to personal injury** which, if not avoided, **may** result in **property damage**.



Denotes risk of electric shock.



Denotes risk of fire.



**WARNING:** To reduce the risk of injury, read the instruction manual.

### General Power Tool Safety Warnings



**WARNING! Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

#### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

#### 1) WORK AREA SAFETY

- Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

#### 2) ELECTRICAL SAFETY

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual**

*current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.*

### 3) PERSONAL SAFETY

- a) *Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.*
- b) *Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c) *Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.*
- d) *Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- e) *Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.*
- f) *Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.*
- g) *If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.*

### 4) POWER TOOL USE AND CARE

- a) *Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.*
- b) *Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- c) *Disconnect the plug from the power source and/or the battery pack from the power tool before making any*

*adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.*

- d) *Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.*
- e) *Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.*
- f) *Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g) *Use the power tool, accessories and tool bits etc., in accordance with these instructions taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.*

### 5) SERVICE

- a) *Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.*

## ADDITIONAL SPECIFIC SAFETY RULES

### Safety Instructions for All Operations

- a) *This power tool is intended to function as a grinder. Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.*
- b) *Operations such as sanding, wire brushing, polishing and cutting-off are not recommended to be performed with this power tool. Operations for which the power tool was not designed may create a hazard and cause personal injury.*
- c) *Do not use accessories which are not specifically designed and recommended by the tool manufacturer. Just because the accessory can be attached to your power tool, it does not assure safe operation.*



- d) **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.
- e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories can not be adequately guarded or controlled.
- f) **The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.** Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- g) **Mandrel mounted wheels, sanding drums, cutters or other accessories must be fully inserted into the collet or chuck.** If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the mounted wheel may become loose and be ejected at high velocity.
- h) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheel for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.**
- i) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
- j) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
- k) **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- l) **Always hold the tool firmly in your hand(s) during start up.** The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.
- m) **Use clamps to support workpiece whenever practical. Never hold a small workpiece in one hand and the tool in the other while in use.** Clamping a small workpiece allows you to use your hand(s) to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.
- n) **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- o) **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.
- p) **After changing bits or making any adjustments, make sure the collet nut, chuck or any other adjustment devices are securely tightened.** Loose adjustment devices can unexpectedly shift, causing loss of control, loose rotation components will be violently thrown.
- q) **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- r) **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- s) **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.
- t) **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

## FURTHER SAFETY INSTRUCTIONS FOR ALL OPERATIONS

### Causes and Operator Prevention of Kickback

*Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.*

*For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.*

*Kickback is the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:*

- a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start up.** The operator can control torque reaction or kickback forces, if proper precautions are taken.
- b) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- c) **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.
- d) **Always feed the bit into the material in the same direction as the cutting edge is exiting from the material (which is the same direction as the chips are thrown).** Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of this feed.
- e) **When using rotary files, cut off wheels, high-speed cutters or tungsten carbide cutters, always have the work securely clamped.** These wheels will grab if they become slightly

*canted in the groove, and can kickback. When a cut-off wheel grabs, the wheel itself usually breaks. When a rotary file, high speed cutter or tungsten carbide cutter grabs, it may jump from the groove and you could lose control of the tool.*

### Safety Warnings Specific for Grinders

- a) **Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel.** Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.
- b) **For threaded abrasive cones and plugs use only undamaged wheel mandrels with an unrelieved shoulder flange that are of a correct size and length.** Proper mandrels will reduce the possibility of breakage.
- c) **Do not position your hand in line with or behind a rotating wheel.** When the wheel, at the point of operation, is moving away from your hand, the possible kickback may propel the wheel and the power tool directly at you.
- d) **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of the cut and the edge of the workpiece on both sides of the wheel.

### Additional Safety Information

- For accessories mounted by flanges, the arbor hole of the accessory must fit the locating diameter of the flange. Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

### Residual Risks

In spite of the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided. These are:

- Impairment of hearing.
- Risk of personal injury due to flying particles.
- Risk of burns due to accessories becoming hot during operation.
- Risk of personal injury due to prolonged use.



## Markings on Tool

The following pictograms are shown on the tool:



Read instruction manual before use.



Wear ear protection.



Wear eye protection.

### DATE CODE POSITION (FIG. 1)

The date code (e), which also includes the year of manufacture, is printed into the housing.

Example:

2014 XX XX

Year of Manufacture

## Package Contents

The package contains:

- 1 die grinder
- 2 wrenches
- 1 Instruction manual
- 1 Exploded drawing
- Check for damage to the tool, parts or accessories which may have occurred during transport.
- Take the time to thoroughly read and understand this manual prior to operation.

## Description (fig. 1)



**WARNING:** Never modify the power tool or any part of it. Damage or personal injury could result.

- a. Paddle switch
- b. Spindle
- c. Collet nut
- d. Lock-off lever
- e. Date code
- f. Small spanner (13 mm)
- g. Large spanner (17 mm)

### INTENDED USE

Your die grinder has been designed for professional grinding applications. The tool can be used with the complete range of commercial grinding tools with a maximum diameter of 38 mm and approved speed of 25000/min.

**DO NOT** use under wet conditions or in presence of flammable liquids or gases.

This die grinder is a professional power tool.

**DO NOT** let children come into contact with the tool. Supervision is required when inexperienced operators use this tool.

- **Young children and the infirm.** This appliance is not intended for use by young children or infirm persons without supervision.
- This product is not intended for use by persons (including children) suffering from diminished physical, sensory or mental abilities; lack of experience, knowledge or skills unless they are supervised by a person responsible for their safety. Children should never be left alone with this product.

## Electrical Safety

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate.



Your DEWALT tool is double insulated in accordance with EN 60745; therefore no earth wire is required.



**WARNING:** 127 V units have to be operated via a fail-safe isolating transformer with an earth screen between the primary and secondary winding.

If the supply cord is damaged, it must be replaced by a specially prepared cord available through the DEWALT service organisation.

## Mains Plug Replacement (Middle East and Africa)

If a new mains plug needs to be fitted:

- Safely dispose of the old plug.
- Connect the brown lead to the live terminal in the plug.
- Connect the blue lead to the neutral terminal.



**WARNING:** No connection is to be made to the earth terminal.

Follow the fitting instructions supplied with good quality plugs. Recommended fuse: 13 A.

## Using an Extension Cable

If an extension cable is required, use an approved extension cable suitable for the power input of this tool (see **Technical Data**). The minimum conductor size is 1.5 mm<sup>2</sup>; the maximum length is 30 m.



When using a cable reel, always unwind the cable completely.

## ASSEMBLY AND ADJUSTMENTS



**WARNING:** To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs.

Before reconnecting the tool, depress and release the trigger switch to ensure that the tool is off. An accidental start-up can cause injury.

### Install Grinding Wheels (fig. 1, 2, 4)



**WARNING:** Accessories must be rated at least equal to the maximum speed marked on the tool. Accessories running faster than their rated speed can break and fly apart.



**WARNING:** Accessories must be within the capacity rating marked on the tool. Incorrectly sized accessories cannot be adequately controlled.



**WARNING:** Do not use accessories with a mandrel length exceeding 40 mm. Ensure that the exposed mandrel length is no more than 10 mm after inserting accessory into collet.



**WARNING:** Never tighten the collet nut without an accessory in the collet.

1. Hold the spindle (b) using the 13 mm wrench (f) provided.
2. Loosen the collet nut (c) with the 17 mm wrench (g) by turning it counterclockwise.
3. Insert the shank of the accessory (minimum 20mm) into the collet.
4. Securely tighten the collet nut (c) using the spanner provided.

**NOTE:** The shank overhang, amount that sticks out past the collet nut (c), should not exceed 10 mm. Refer to figure 4.

## OPERATION

### Instructions for Use



**WARNING:** Always observe the safety instructions and applicable regulations.



**WARNING:** To reduce the risk of injury, turn unit off and disconnect machine from power source before

installing and removing accessories, before adjusting or changing set-ups or when making repairs.

Before reconnecting the tool, depress and release the trigger switch to ensure that the tool is off. An accidental start-up can cause injury.



**WARNING:**

- Ensure all materials to be ground or cut are secured in place.
- Use clamps or a vice to hold and support the workpiece to a stable platform. It is important to clamp and support the workpiece securely to prevent the movement of the workpiece and loss of control. Movement of the workpiece or loss of control may create a hazard and cause personal injury.
- Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.
- Always wear regular working gloves while operating this tool.
- The gear case becomes very hot during use.
- Apply only a gentle pressure to the tool. Do not exert side pressure on the disc.
- Avoid overloading. Should the tool become hot, let it run a few minutes under no load condition.
- The best grinding results are achieved when setting the machine at an angle of 90°. Move the machine back and forth with moderate pressure. In this manner, the workpiece will not become too hot, does not discolour and no grooves are formed.



**WARNING:** Grasp tool firmly with both hands to maintain control of the tool at start up and during use and until the wheel or accessory stops rotating. Make

sure the wheel has come to a complete stop before laying the tool down.

Put the work in a vise or clamp it securely. Use a face mask over the nose and mouth if the operation raises dust. Treat the wheel with respect. Do not jam the wheel into the work or use unnecessary pressure. Grind only on the face of the wheel unless you have a special wheel specifically made to permit grinding on the side of the wheel.

### Proper Hand Position (fig. 3)



**WARNING:** To reduce the risk of serious personal injury, **ALWAYS** use proper hand position as shown.



**WARNING:** To reduce the risk of serious personal injury, **ALWAYS** hold securely in anticipation of a sudden reaction.

Proper hand position requires one hand on the body, with the other hand on the neck of the die grinder, as shown in figure 3.

### Switches



**WARNING:** Before connecting the tool to a power source depress and release the switch once without depressing the lock-off lever to ensure that the switch is off. Depress and release the switch as described above after any interruption in power supply to the tool, such as the activation of a ground fault interrupter, throwing of a circuit breaker, accidental unplugging, or power failure. If the switch is locked on, the tool will start unexpectedly when it is reconnected.



**WARNING:** Grasp tool firmly with both hands to maintain control of the tool at start up and during use and until the wheel or accessory stops rotating. Make sure the wheel has come to a complete stop before laying the tool down.



**WARNING:** To reduce unexpected tool movement, do not switch the tool on or off while under load conditions. Allow the grinder to run up to full speed before touching the work surface. Lift the tool from the surface before turning the tool off.

### PADDLE SWITCH (FIG. 1)

The lock-off lever (d), located on the paddle switch, is a safety feature that prevents accidental activation of the grinder.

To turn the tool on, push the lock-off lever (d) toward the back of the tool, then depress the paddle switch (a). The tool will run while the switch is depressed. Turn the tool off by releasing the paddle switch.



**WARNING:** Do not disable the lock-off lever. If the lock-off lever is disabled, the tool may start unexpectedly when it is laid down.



**WARNING:** Allow the tool to reach full speed before touching tool to the work surface. Lift the tool from the work surface before turning the tool off.

### Metal Applications

When using the tool in metal applications, make sure that a residual current device (RCD) has been inserted to avoid residual risks caused by metal swarf.

If the power supply is shut off by the RCD, take the tool to authorised DeWALT repair agent.



**WARNING:** In extreme working conditions, conductive dust can accumulate inside the machine housing when working with metal. This can result in the protective insulation in the machine becoming degraded with a potential risk of an electrical shock.

To avoid build-up of metal swarf inside the machine, we recommend to clear the ventilation slots on a daily basis. See **Maintenance**.

### MAINTENANCE

Your DeWALT power tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.



**WARNING:** To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Before reconnecting the tool, depress and release the trigger switch to ensure that the tool is off. An accidental start-up can cause injury.

### Motor Brushes

Keep brushes clean and sliding freely in their guides. Carbon brushes have varying symbols stamped into them, and if the brush is worn down to the line closest to the spring, they must be replaced. New brush assemblies are available at your local service center.



## Lubrication

Your power tool requires no additional lubrication.



## Cleaning



**WARNING:** Blow dirt and dust out of the main housing with dry air as often as dirt is seen collecting in and around the air vents. Wear approved eye protection and approved dust mask when performing this procedure.



**WARNING:** Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

## Optional Accessories



**WARNING:** Since accessories, other than those offered by DeWALT, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only DeWALT recommended accessories should be used with this product.

Consult your dealer for further information on the appropriate accessories.

## Protecting the Environment



Separate collection. This product must not be disposed of with normal household waste.



Should you find one day that your DeWALT product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.



Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

DeWALT provides a facility for the collection and recycling of DeWALT products once they have reached the end of their working life. To take advantage of this service please return your product to any authorised repair agent who will collect them on our behalf.

You can check the location of your nearest authorised repair agent by contacting your local DeWALT office at the address indicated in this manual. Alternatively, a list of authorised DeWALT repair agents and full details of our after-sales service and contacts are available on the Internet at: [www.2helpU.com](http://www.2helpU.com).

