

Model: TDRILS213

# DRILL BIT SHARPENER 120W

## ORIGINAL OPERATING INSTRUCTIONS



SUPPLIED BY

**Adendorff**  
machinery mart  
[www.adendorff.co.za](http://www.adendorff.co.za)



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Welcome to the Adendorff family! We're delighted to have you with us and thank you for choosing our product. Your trust and support are greatly appreciated, and we are confident that this device will serve you well.

Please read this manual carefully before installation and use. It contains important safety information and operating instructions that must be followed to ensure proper and safe operation. Keep this manual for future reference.

Taking the time to familiarise yourself with the product will help you maximise its performance and ensure a smooth, trouble-free experience.

If you have any questions or require assistance, please don't hesitate to contact our support team.

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## Product Introduction

The TDRILS213 Drill Bit Sharpener is designed for quick, accurate, and user-friendly drill bit sharpening. It reduces costs by extending drill bit life and improving performance. The sharpener features a durable diamond grinding wheel for consistent results and a reliable DC motor that delivers stable operation. Adjustable settings allow precise alignment for various drill sizes and materials, ensuring accuracy and extended tool life.

## Specification

Model	Grinding Range	Point Angle	Motor Power / Speed	Weight	Dimensions
TDRILS213	Ø3–Ø13 (15) mm	95°–135°	230V,50/60Hz, 120W/4400rpm	9 kg	32×18×19 cm

## Standard Equipment

- Grinding wheel: CBN (for HSS) × 1 piece
- 11 collets: Ø3–Ø13 collet chuck × 1 piece
- Electric cable × 1 piece
- Hexagon wrench (M5) × 1 piece

## Safety Warnings

 **Important: Read all instructions before use.**

## Work Area Safety

- Keep work area clean and well lit. Cluttered or dark areas increase risk of accidents.
- Do not operate in damp, wet, or explosive environments. Avoid flammable liquids and gases.
- Keep children and bystanders away from the work area.

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## Electrical Safety

- Prevent electric shock by avoiding contact with earthed surfaces such as pipes or radiators.
- Always disconnect the tool when not in use, before servicing, or when changing accessories.
- Do not use damaged cables or plugs. Replace immediately.

## Personal Safety

- Stay alert. Do not use when tired or under the influence of alcohol, drugs, or medication.
- Wear appropriate PPE: safety glasses, hearing protection, and close-fitting clothing.
- Tie back long hair and remove jewellery that may get caught in moving parts.
- Maintain proper footing and balance at all times.

## Tool Use Safety

- Use only accessories recommended by Adendorff.
- Do not force the tool. Use the correct tool for the application.
- Inspect for damaged parts before use. Do not operate with broken or misaligned components.
- Do not operate if the switch does not function properly.

## Operation

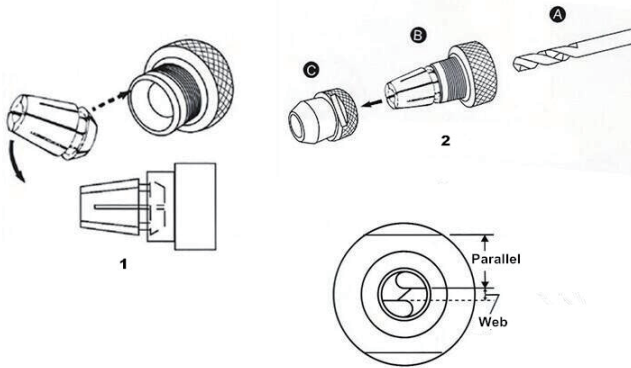
### A. Setting Up the Drill Bit in the ER Collet Chuck

1. Determine the diameter of your drill bit and select the appropriate collet and chuck.
2. Insert the collet into the chuck at a 45° angle and tighten the nut slightly.
3. Insert the drill bit so that approximately 35 mm extends beyond the chuck. Do not fully tighten yet.

**Note:** The clamping nut must not be fully fastened at this stage. The drill bit must remain adjustable.

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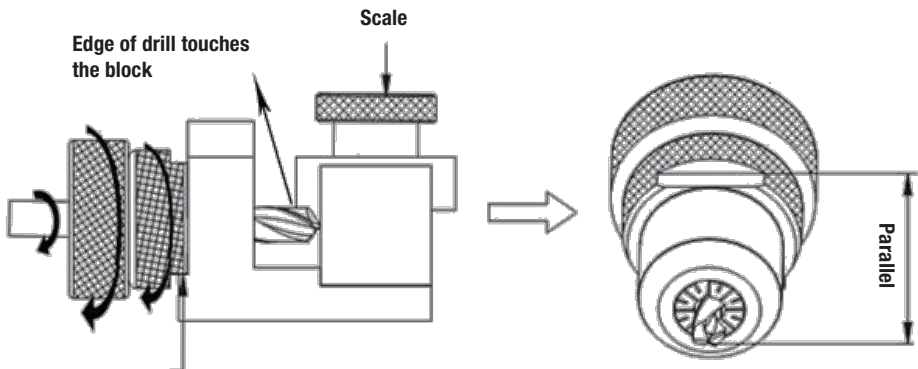
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## B. Aligning the Drill Bit

1. Reset the scale ring by turning it fully clockwise, then anti-clockwise to match the drill size.
2. Insert the chuck set into the web adjustment shelf and tighten clockwise.
3. Push the drill fully in and turn it clockwise.
4. Tighten the chuck set securely, then gently remove.

**Note:** Ensure the drill cutting lip is parallel with the clamping nut slot before grinding. Adjust if necessary.



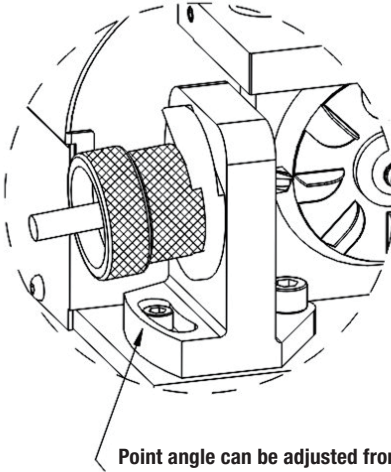
Push forward to the end, then turn clockwise to the stopper

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## C. Grinding the Point Angle

1. Switch on the power and allow 10 seconds for the motor to stabilise.
  2. Insert the chuck set into the point angle grinding shelf, aligning pins correctly.
  3. Move the drill gently left and right until the grinding sound stops.
  4. Rotate and repeat for the opposite side.
- Drill size range:  $\text{Ø}3\text{--}\text{Ø}13$  mm (up to  $\text{Ø}15$  mm).
  - Point angle range:  $95^\circ\text{--}135^\circ$ .



Grinding sample



## D. Grinding the Lip Relief Angle

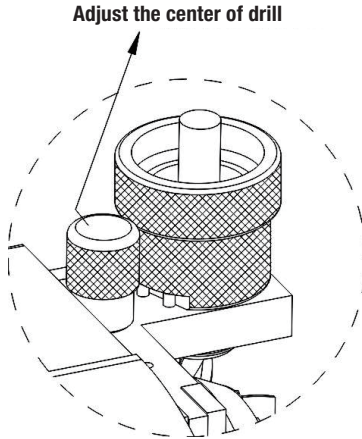
1. Insert the chuck set into the lip relief angle grinding shelf.
2. Move left and right until grinding sound stops, then repeat on the other side.

**Attention:** If the cutting lip points downward, increase the web adjustment scale. If upward, decrease it.

**Note:** Shorter drill flute lengths increase web thickness. Adjust the web scale accordingly.

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Grinding sample



## Maintenance

### 1. Cleaning & Rust Prevention

- o Remove debris after use.
- o Apply a rust inhibitor to metal parts before storage.

### 2. Lubrication & Inspection

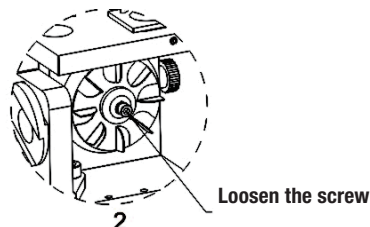
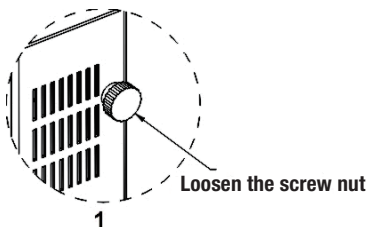
- o Lubricate bearings and moving parts regularly with heat-resistant grease.
- o Inspect the grinding wheel for cracks or heavy wear. Replace immediately if damaged.
- o Ensure all fasteners are secure.

### 3. Storage & Safety

- o Store in a dry place, covered when not in use.
- o Regularly inspect power cables, switches, and fuses.

## Replacing The Wheel

### A. Open the wheel cover

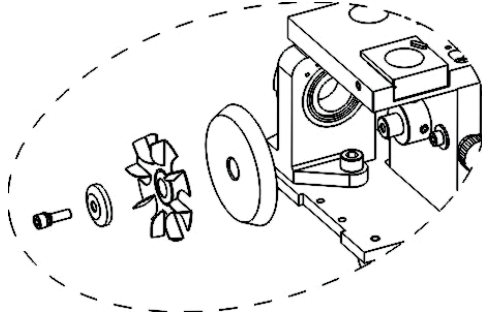


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1. Ensure the power cord is unplugged before proceeding.
2. Use a 4 mm hex wrench to loosen the screw and open the cover.

## B. Removing and Replacing the Grinding Wheel



1. Use a brush to clean the machine, then wipe the surface with a dry cloth.
2. If the machine was recently used, wait at least 3 minutes for the grinding wheel to cool down.
3. Hold the wheel firmly with your left hand. Using your right hand, turn the screw counterclockwise with a 4mm hex wrench to loosen it.
4. Remove the diamond grinding wheel from the machine.
5. Insert the new grinding wheel.
6. Place the wheel onto the motor's principal axis, then tighten the screw and reinstall the wheel cover to complete the replacement.

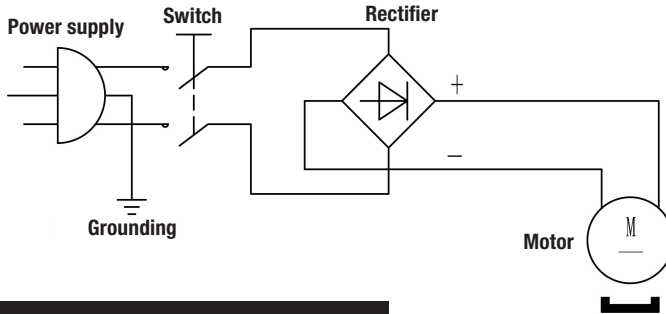
**⚠ Warning:** Always disconnect power before replacing the wheel.

1. Allow the machine to cool for at least 3 minutes after use.
2. Use a 4 mm hex wrench to loosen the screws and open the wheel cover.
3. Hold the wheel with one hand and use the wrench to loosen the retaining screw counterclockwise.
4. Remove the worn wheel and replace it with a new diamond grinding wheel.
5. Position the wheel on the motor shaft, then tighten the screws and close the cover securely.

**Note:** The motor shaft is a precision component. Incorrect installation may damage the wheel or affect alignment.

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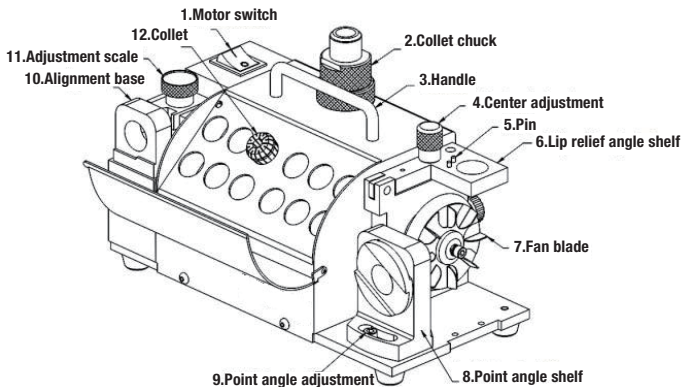
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## Troubleshooting

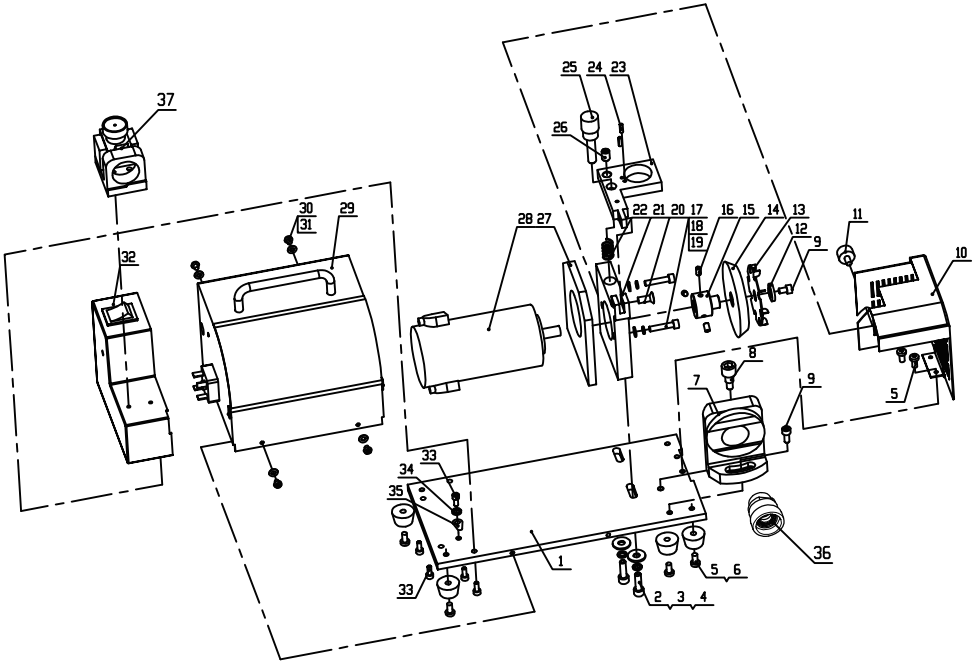
No.	Issue	Possible Cause	Solution
1	Machine won't turn on	Voltage instability or blown fuse	Check/replace the fuse
2	Motor not running (switch is on)	Loose or detached wiring	Inspect and reconnect wires
3	Burning smell from motor	Motor failure	Replace the motor immediately
4	Drill bit not grinding properly	Incorrect grinding wheel for bit material	Use the correct wheel (CBN for HSS, SD for carbide)
5	Drill bit still not grinding	Grinding wheel worn or damaged	Replace the grinding wheel

## Parts List & Exploded Diagram



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No.	English Part Name	Qty.
1	Backplane	1
2	M6x20 Screw	2
3	Spring Washer 6	2
4	Flat washer 6.7x13x1.9	2
5	M5x10 Cross-head Screw	6
6	Rubber Foot Pad M5	4
7	Grinding Seat	1
8	Grinding Seat Screw	1
9	M5x16 Screw	2
10	Grinding Wheel Cover	1
11	M5x10 Screw	1
12	Grinding Wheel Gasket	1
13	Heat Dissipation Blade	1
14	Grinding Wheel	1
15	Aluminum Core	1
16	M6x8 Screw	3
17	M5x25 Screw	2
18	Spring Washer 5	2
19	Flat washer 5.6x11x1.4	2

No.	English Part Name	Qty.
20	M6x16 Screw	1
21	Motor plate	1
22	Spring 1x11x45	1
23	Single Hole Plate	1
24	Elastic Pin 3x10	2
25	Long Threaded Rod	1
26	M8x12 Screw	1
27	Dust Washer	1
28	Motor	1
29	Shell Assembly	1
30	M4x8 Screw	4
31	Flat washer 4	4
32	Switch Assembly	1
33	M4x12 Screw	5
34	Lock Washer 4	1
35	Aluminum Grounding Sign $\phi 5$	1
36	Collet Chuck	1
37	Alignment Base	1

★ Refer to the diagram provided. Ensure all replacement parts are sourced from authorised Adendorff outlets.

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## Warranty

### WARRANTY TERMS AND CONDITIONS

#### Warranty Period

- 12 months from purchase date (first user only).

#### Coverage

- Manufacturing and material defects.
- Excludes: batteries, chargers, wear parts (bearings, brushes, cables, plugs), accessories (drills, drill bits, saw blades).

#### Exclusions

- Misuse, maltreatment, accidents, or modifications.
- Overloading, fluid ingress, excessive dust, or intentional damage.
- Failure to follow instructions or use correct voltage.

#### Liability

Adendorff Machinery Mart accepts no liability for injuries caused by improper use.

#### Repairs

- Warranty repairs must be carried out at authorised Adendorff repair centres.
- A 3-month warranty applies to all repairs.

#### Transport Costs

- Transport is the customer's responsibility unless agreed in writing.

#### Claims

- Warranty claims require proof of purchase.
- Claims do not extend or reset the warranty period.

#### Returns

- Return product intact, clean, and in original case (if applicable).
- Include proof of purchase.

For full warranty details, visit [www.adendorff.co.za](http://www.adendorff.co.za) or call 011 434 7000.

 **Danger!** Read all safety regulations and instructions. Keep this manual for future use.

Supplied by:

Adendorff Machinery Mart

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[www.adendorff.co.za](http://www.adendorff.co.za)

Made in P.R.C.

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Keep all safety regulations and instructions in a safe  
place for future use.**

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