PROXXON

Ihr Gerät funktioniert nicht ordentlich? Dann bitte die Bedienungsanleitung noch einmal genau durchlesen.
Ist es tatsächlich defekt, senden Sie es bitte an:

PROXXON Zentralservice
D-54518 Niersbach

PROXXON Zentralservice
A-4224 Wartberg/Aist

Wir reagieren prompt und zuverlässig! Über diese Adresse können Sie auch alle erforderlichen Ersatzteile bestellen.

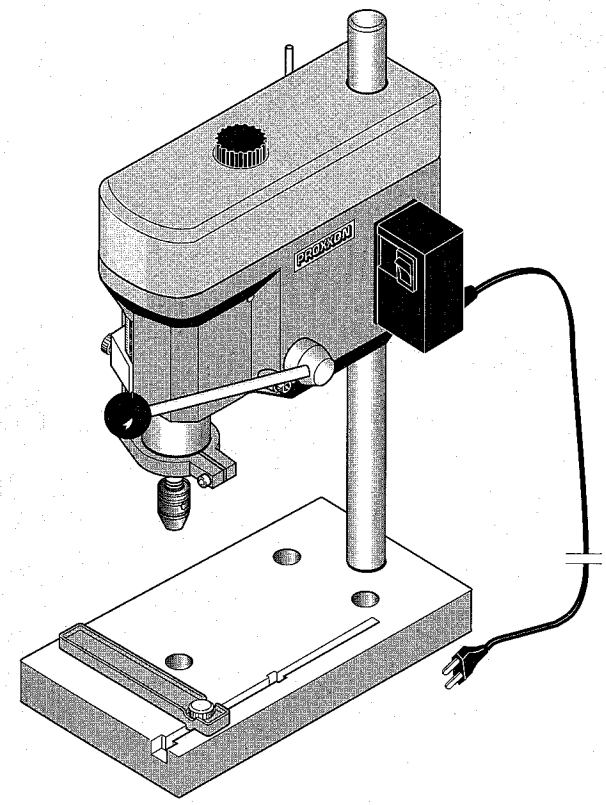
Wichtig:
Eine kurze Fehlerbeschreibung hilft uns, noch schneller zu reagieren.
Bei Rücksendungen innerhalb der Garantiezeit bitte Kaufbeleg beifügen.
Bitte senden Sie das Gerät in der Originalverpackung zurück! So vermeiden Sie Beschädigungen beim Transport!

Änderungen im Sinne des technischen Fortschritts behalten wir uns vor.

Art.Nr. 28128-99 PR 703504805J

PROXXON

TBM220



Manual

D GB F I E NL DK S CS TR

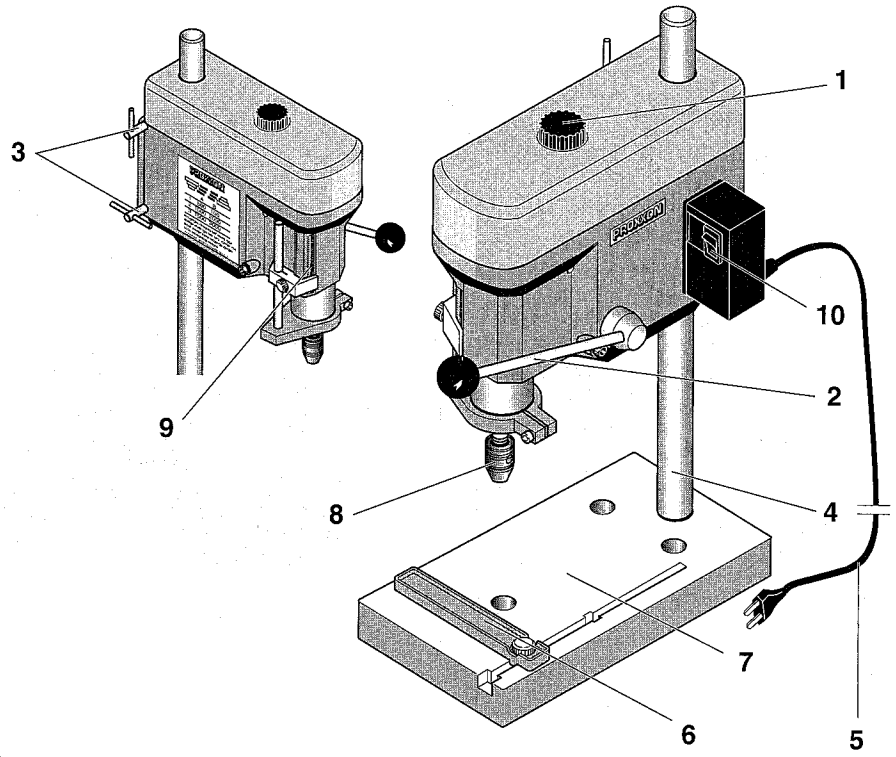


Fig. 1

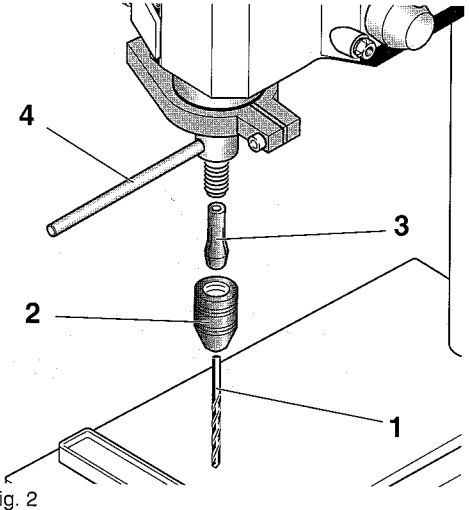


Fig. 2

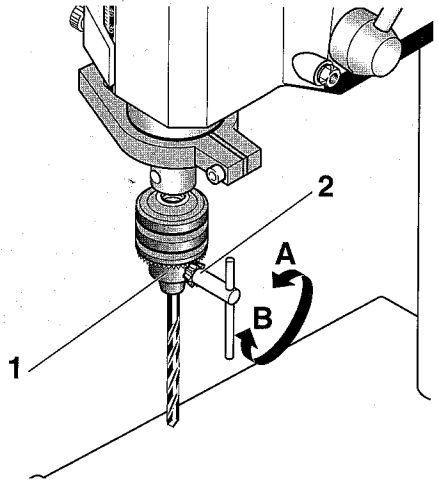


Fig. 3

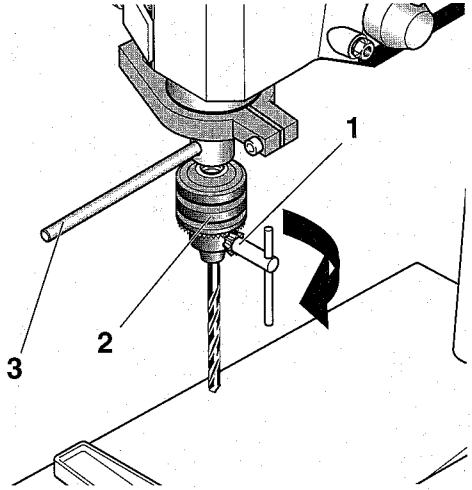


Fig. 4

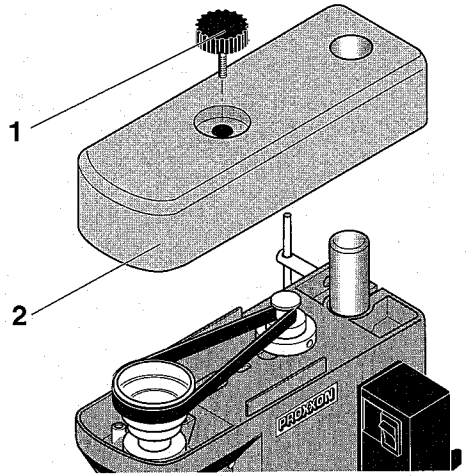


Fig. 5

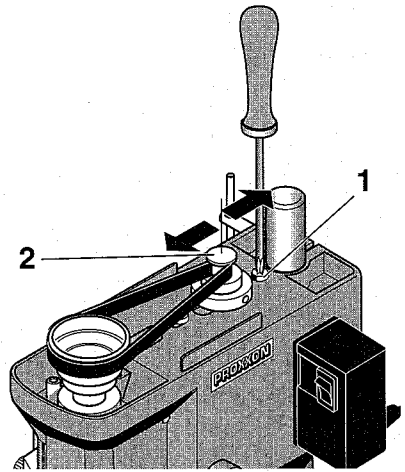


Fig. 8

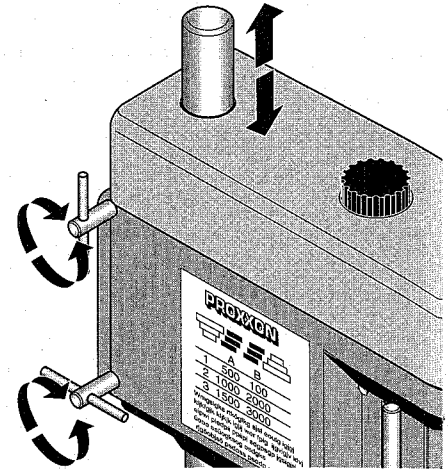


Fig. 9

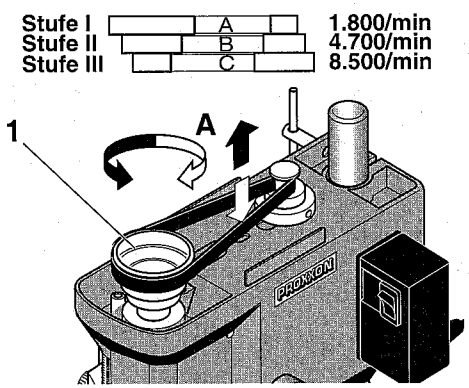


Fig. 6

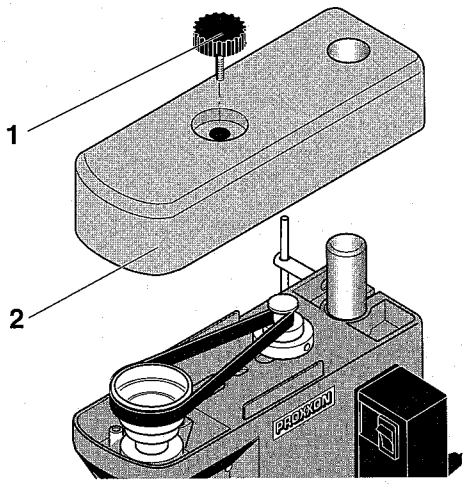


Fig. 7

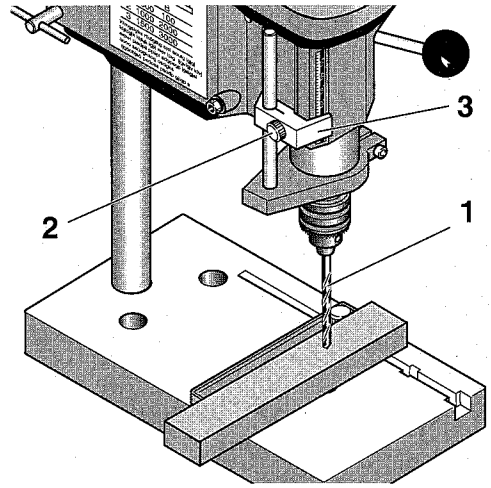


Fig. 10

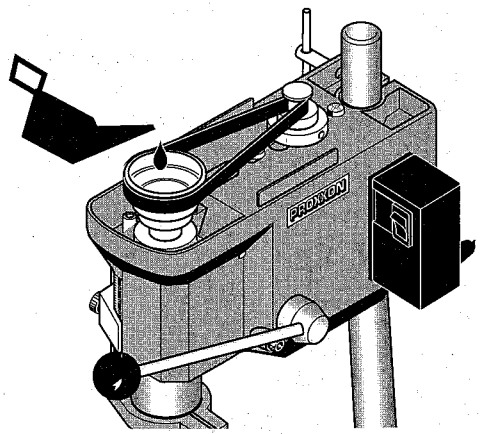


Fig. 11

Foreword

Dear customer!

The PROXXON Bench drill TBM 220 is a precisely working and powerful machine.

This manual comprises:

- safety regulations
- operating instructions and
- spare parts list.

Please note!

Using this manual will

- **help you** to understand the machine,
- **avoid** malfunctions caused by faulty operation,
- **increase** the lifetime of the machine.

Always keep this manual close at hand.

Do not operate the equipment unless you are fully familiar with it. Follow the instructions.

PROXXON will not assume liability for safe functioning

- if the unit is used in a way that does not comply with the usual modes of operation,
- if it is used for purposes other than those mentioned in this manual,
- if the safety regulations are not observed.

No warranty claims can be lodged for damage resulting from

- operating errors,
- insufficient maintenance.

Please observe the safety regulations for your own safety.

Use only genuine PROXXON spare parts.

We reserve the right for technical modifications without prior notification.

We wish you much success with your new machine.

Safety regulations

Attention !

Please read and apply the following safety regulations thoroughly before starting to work with the machine, thereby protecting yourself and others.

- Keep the working area clean and tidy.
- Do not wear any loose clothes or jewellery.
- Do not work with the machine if you are not feeling well, if you are tired or not concentrated or if you are under the influence of alcohol.
- Do not use electrical tools in rain, under wet conditions or in the vicinity of inflammable liquids or gases.
- Protect the power cable against heat and being cut.
- Before starting to work fasten the drill bench to a solid work top.
- Clamp and fasten the work piece securely.
- Before starting to work check the machine for any obvious faults. Replace damaged parts.
- Keep children away from the working area.
- Wear protective goggles.
- Do not overload the machine.
- Store the machine in a locked up room out of the reach of children when not in use.
- Replace blunt tools.
- Clean the machine thoroughly after work.
- Remove drilling and milling chips only with hand broom or a brush.
- Do not brake the drilling spindle with your hand.
- Always disconnect the power cable if the machine is not in use, when changing tools or in case of repairs.
- Repairs in the electrical system should only be carried out by an electrician.
- Use only accessories and spare parts which are mentioned in this manual or which are recommended by the manufacturer.

PROXXON GmbH

Legend

1 Fastening screw for machine cover
2 Drill feed lever
3 Handle screw for height adjustment
4 Drill column
5 Power cable
6 Adjustable stop
7 Drill table
8 Spigot nut
9 Depth scale
10 ON-OFF switch

Description of the machine

The PROXXON - bench drill TBM 220 is an ideal machine for high precision drilling work.

This machine offers:

- Precisely machined work table made of high quality, aluminium die cast with reinforcement webs.
- Fixed stop with scale.
- Strong, chromium coated steel column.
- Treble torque in the low speed range.
- Drilling spindle running in three high quality precision ball bearings without any clearance.
- Spindle end suitable for clamping jaws or 38" drill chuck.

Technical data

Dimensions

Throat (inner face of column to middle of drill chuck)	140 mm
max. space table surface - spindle end	140 mm
Quill feed	30 mm

Motor

Voltage:	230 V, 50/60 Hz
Power:	85 Watt 10 min
Idle speed of spindle:	1.800, 4.700, 8.500 rpm
Noise development:	≤ 70 dB (A)

Accessories

Clamping jaws for1,0/1,5/2,0/2,4/3,0 and 3,2 mm shanks

Operation

Before operation

Fasten the machine securely on a strong base.

Clamping, changing the tool

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Attention!

Pull the mains plug out before changing tools.

Tightening the spigot nut without inserting a suitable shank will damage the clamping jaw.

1. Insert the pin 4 (Fig. 2) into the bore and block the spindle.
2. Unscrew the spigot nut (2).
3. Insert the required clamping jaw (3) with the appropriate tool (1) and retighten the spigot nut.

Note:

Clamp all tools as short as possible. Extremely protruding shanks will bend and cause eccentric rotation.

Clamping, changing tools with the drill chuck (not included)

Attention!

Pull the mains plug out when changing tools.

1. Insert the drill chuck key 2 (Fig. 3) into the drill chuck (1).
2. Turn the drill chuck key in direction "A" to open the drill chuck.
3. Insert the tool into the drill chuck until it bottoms.
4. Turn the drill chuck key in direction "B" to close the drill chuck and to clamp the tool.

Removing and installing the drill chuck

Note:

This must be done to install the clamping jaws.

Attention!

Pull the mains plug out beforehand.

1. Insert the pin 3 (Fig. 4) into the bore and block the spindle.
2. Insert the drill chuck key (1) and unscrew or tighten the drill chuck. (2).

Adjusting the spindle speed

Attention!

Pull the mains plug out beforehand.

Do not use the machine without protective covering.

Note:

High performance is not achieved by high feeding speed, but correct and uniform rotary speed.

Belt position "A" = 1.800 rpm

Belt position "B" = 4.700 rpm

Belt position "C" = 8.500 rpm

small drill Ø = high speed

big drill Ø = low speed.

1. Unscrew the knurled screw 1 (Fig. 5) and lift the cover (2) off.

Attention!

Work careful to avoid damage to the belt.

2. Turn the belt pulley 1 (Fig. 6) in direction "A" and press the belt slightly down (or up) until it comes loose.
3. Place the loose belt first on the required pulley (1) then turn the spindle and force the belt on the corresponding disc on the motor spindle.
4. Reinstall the cover.

Adjusting the belt tension

Attention!

Pull the mains plug out beforehand.

Do not use the machine without the protective cover.

1. Unscrew the knurled screw 1 (Fig. 7) and lift the cover (2) off.
2. Loosen both fastening screws 1 (Fig. 8) and displace the motor spindle (2) until the required tension is achieved.
3. Retighten the fastening screws.
4. Reinstall the cover.

Note:

Tighten the belt only so far that the slippage is eliminated. A too tight belt will deform during a longer period of rest, which reduces the power of the motor.

Adjusting the distance between tool and work piece

Note:

Always adjust the initial position before starting work.

Perform this work after clamping work piece and drill.

1. Support the drill head with your hand against slipping down.
2. Loosen both handle screws (Fig. 9) and adjust the height of the drill head until the distance between drill and work piece is approx.
   2 to 5 mm.
3. Retighten the clamping screws.

Adjusting the depth stop

Note:

The working stroke of the quill is max. 30 mm. With the depth scale it can be limited downwards.

1. Use the drill feed lever to lower the quill until the drill 1 (Fig. 10) touches the work piece.
2. Loosen the clamping screw (2).
3. Adjust the scale pointer (3) to the required drilling depth (max. 30 mm) and retighten the clamping screw.

Maintenance

Attention!

Always pull the mains plug out before starting maintenance or cleaning work.

Lubricate the quille guide (Fig. 11) every 10 operating hours with a few drops of high quality machine oil.

After working with the machine remove all chips with a suitable hand broom or brush.

Clean the machine regularly with a cloth from all dirt.

If the machine is not going to be used for a longer period of time remove the drive belt to avoid deformation and erratic running.

CE - Declaration of Conformity

We

PROXXON S.A.
Härebierg 6 - 10
L-6868 Wecker

declare in sole responsibility, that the machine

Model: bench drill
Type designation: TBM 220

described in the enclosed documentation is in accordance with the following EC-regulations:

EC machine regulation 98/037/EWG
DIN-EN 61029-1/1995

EC-EMV-regulation 89/336/EWG
DIN-EN 55014: 1993, EN 55014-1/A1: 1997
DIN-EN 55014-2: 1997

EG-low voltage regulation 73/23/EWG
DIN-EN 61029-1/2000

Date: 18.06.2001

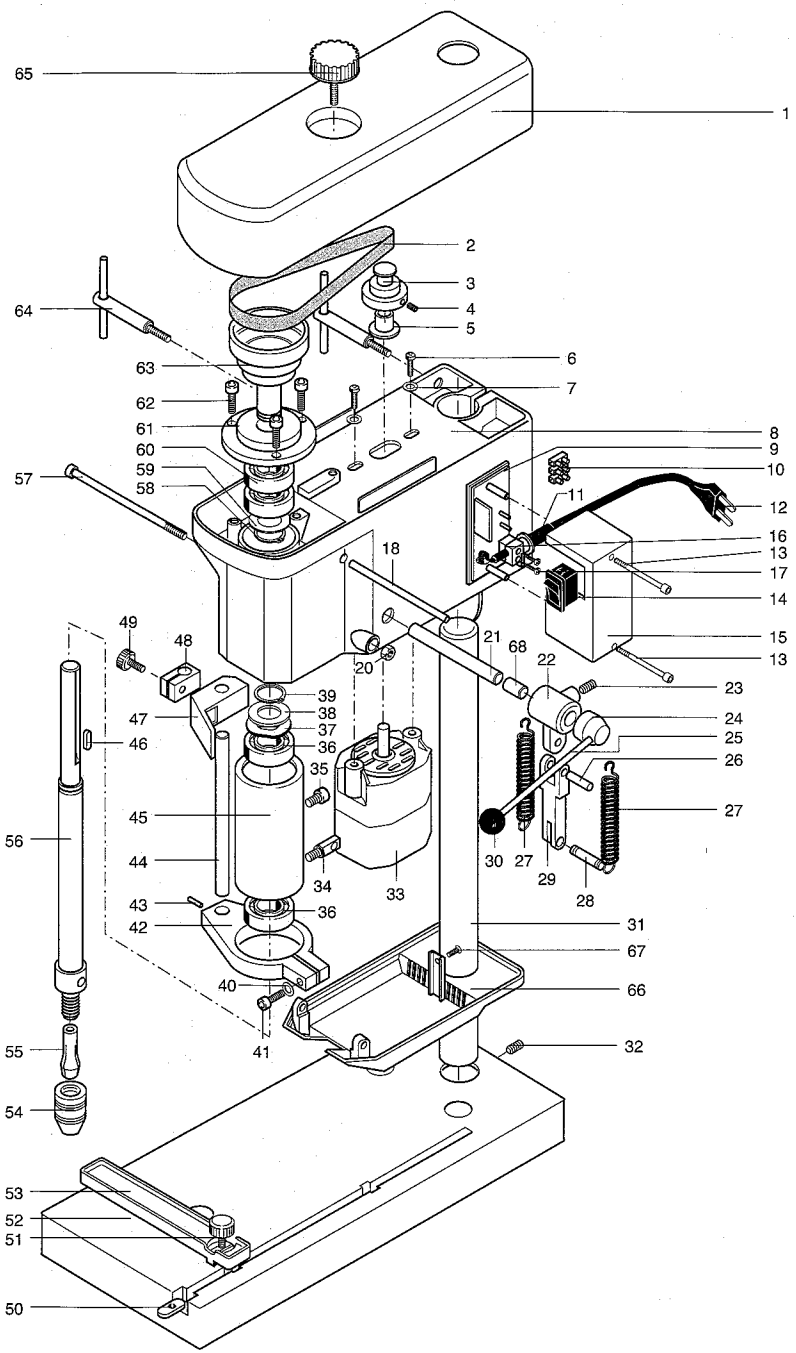
Signature:

Function: Entwicklung/Konstruktion
Name: Jörg Wagner
Position: Research & Developement

GB

Tischbohrmaschine TBM 220

ET-Nr.:	Benennung
28 128-01	Abdeckhaube
28 128-02	Antriebsriemen
28 128-03	Riemenscheibe Motor
28 128-04	Gewindestift
28 128-05	Bundbuchse
28 128-06	Motorbefestigungsschraube
28 128-07	Unterlegscheibe
28 128-08	Maschinengehäuse
28 128-09	Schaltergehäuseboden
28 128-10	Anschlußklemme
28 128-11	Knickschutztülle
28 128-12	Anschlußleitung
28 128-13	Besfestigungsschraube
28 128-14	Geräteschalter
28 128-15	Anschlußkasten
28 128-16	Zugentlastung
28 128-17	Schraube
28 128-18	Stab
28 128-20	Mutter
28 128-21	Vorschubwelle
28 128-22	Vorschubhebel
28 128-23	Gewindestift
28 128-24	Verbindungsstück
28 128-25	Bohrhebel
28 128-26	Stift
28 128-27	Zugfeder
28 128-28	Bolzen
28 128-29	Gabel
28 128-30	Kugelkopf
28 128-31	Stahlsäule
28 128-32	Gewindestift
28 128-33	Motor
28 128-34	Halteschraube
28 128-35	Schraube
28 128-36	Kugellager
28 128-37	Wellscheibe
28 128-38	Scheibe
28 128-39	Sicherungsring
28 128-40	Unterlegscheibe
28 128-41	Schraube
28 128-42	Flansch
28 128-43	Stift
28 128-44	Stab
28 128-45	Pinole
28 128-46	Paßfeder
28 128-47	Skalenzeiger
28 128-48	Klemmstück
28 128-49	Rändelschraube
28 128-50	Mutter
28 128-51	Rändelschraube
28 128-52	Bohrtisch
28 128-53	Anschlag
28 128-54	Überwurfmutter
28 128-55	Spannzange
28 128-56	Bohrspindel
28 128-57	Klemmschraube
28 128-58	Sicherungsring
28 128-59	Scheibe
28 128-60	Kugellager
28 128-61	Flansch
28 128-62	Befestigungsschraube
28 128-63	Riemenscheibe Bohrspindel
28 128-64	Knebelschraube
28 128-65	Rändelschraube
28 128-66	Untere Gehäuseabdeckung
28 128-67	Schraube
28 128-68	Distanzstück
28 128-98	Artikelverpackung
28 128-99	Bedienungsanleitung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