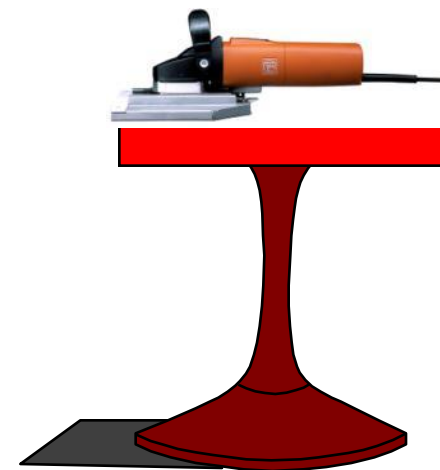
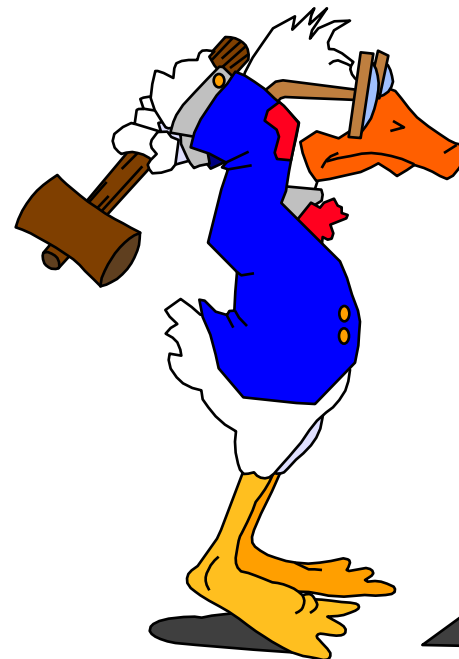


## 1. Starting page





## Contents

1. Technical data
2. Maintenance
3. Function test
4. Disassembly
5. Assembly
6. Tools
7. Excerpts from the operating manual
8. Parts, assignment, diagrams
9. Info on diamond wheel
10. Operation help
11. Notes



## 1. Technical data

■ Order reference	7 238 12
■ Model	MF 12-180
■ Speed, no load	7000/min
■ Power input	1 200 W
■ Power output	750 W
■ Power mains connection type	1~
■ Weight (without cable)	4.1 kg
■ Safety class	II
■ Diamond wheel- Ø	180 mm
■ Cutting depth:	0-50 mm
■ Chuck size:	Special retainer
■ Cable:	4 m
■ Basic machine:	WSG 12-125 / 150



## 2. Maintenance

### 2.1. Regulations

### 2.2. Cleaning and care



## 2.1 Regulations

Please note that electrical tools may on principle only be repaired, serviced and tested by specialist electricians, since inappropriate maintenance and repair can involve grave danger for the user (*BGV A2*).

Routine tests are to be carried out according to *DIN VDE 0702-1*.

After repairs, observe the regulations according to *DIN VDE 0701 Part 1*.

**Only use original FEIN replacement parts!**

At initial operation, observe the relevant accident prevention regulations of the trade and professional associations.

For appropriate use, refer to the law on technical work media (device safety law).

**Outside Germany, the regulations applicable in each different country must be observed!**



## 2.2 Cleaning and care



### Injury hazards!

- ...through unintentional switch-on.
- Pull plugs before cleaning work.



Once a week, more often when used frequently:

- Clean cooling vents
- Blow out motor space from outside with dry compressed air



## 3. Function test

- **Handle (940):** -provided / pulled tight
- **Stop sleeve (800):** -provided / can be adjusted or tightened
- **Base plate (820):** -can be moved without jerking /  
extension spring function (900)
- **Diamond wheel (910):** -can be moved freely
- **Base plate (930):** -is stopped / can be removed
- **Suction tunnel (820):** -is free of foreign materials



## 4. Disassembly

- Disassembly of the directly attached construction can be seen in the exploded view diagram.
- To disassemble the drive unit, refer to the repair instructions of the WSG 12-125 and WSG 12-150!





## 5. Assembly

To assemble the drive unit, refer to the repair instructions of the  
**WSG 12-125 and WSG 12-150!**

5.1. Test and setting values

5.2. Info / Modifications



## 5.1. Test and setting values

a) **Check test measurement: min 1.0 mm and max: 3.8 mm with calibre**  
(under-edge of diamond wheel (910) / base plate (930))

b) **Torque: 1.8 – 2.0 Nm**  
(4 countersunk screws (920) on diamond wheel)

**Clean M4 threaded holes with threaded drill**  
**Secure screws extra with Loctite 224, unless the screws (920) were**  
**moistened with microcapsule treatment.**

c) **Torque: 4.2 Nm**  
**Two cheesehead screws (950) for fastening handle (940).**



## 5.2. Info / Modifications

- In future, diamond wheels (910) are itemised under the article code 6 35 02 146 01 1. The article code includes a diamond wheel (910) and the 4 screws (920) 4 30 69 005 04 4 with microcapsule treatment (Scotch Grip 2353)
- In cases of repair, gearbox case (200) 3 12 06 110 01 5 is replaced by gearbox case (200) 3 12 06 133 01 9 and toothed wheel (970) 4 24 39 006 08 3, also when the handle (940) cannot be tightened.
- Lubrication:  
Movable parts of the construction cutter extension are not lubricated, which means dirt does not stick and the machine can be cleaned with compressed air

**!!!After safety check, deliver machine with mounted diamond wheel!!!**

**>>>Renew screws (920)<<<**

**!!!Only use construction cutter in connection with dust extractor!!!**



## 6. Tools:

- Cross-slotted screwdriver PH2 retail
- Hexagon bolt screwdriver SW: 3 mm retail
- Hexagon bolt screwdriver SW: 4 mm retail
- Hexagon bolt screwdriver SW: 5 mm retail
- Fork spanner SW 8 mm retail
- Dynamometric key ( Akku Tec) 1.8 - 2.0 Nm retail
- Threaded drill M4 retail



## 7. Excerpts from the operating manual:

7.1 Appropriate use

7.2 Safety instructions: injury hazards

7.3. Safety instructions: personal safety equipment

7.4. Operation: work

7.5. Operation: switching on and off (1)

7.6. Operation: setting depth stop (3)

7.7. Operation: changing diamond wheel (8)

7.8. Operation: cleaning and care

## 7.1 Appropriate use

**This device is designed:**



- for industrial use in industry and manual trades.
- for detaching plaster, masonry, cement, tiles and metal fastening bands, especially when dismantling old windows.
- for tile pavers and step builders.
- for use with tools and accessories specified for use in the operating manual for the MF 12-180, or those recommended by FEIN.



## 7.2 Safety instructions: Injury hazards



### Injury hazards

- Always work with additionally attached handle.
- Only use diamond wheels whose permissible speed corresponds at the least to the idle-running speed of the device. Tools working at excessive speed can fly apart and cause injury.
- Check the diamond wheel before use.
  - Only use undamaged diamond wheels.
  - The mounted diamond wheel must be able to turn freely.
  - Only use concentric diamond wheels.
- Do a test run with a diamond wheel lasting 30 seconds.
- The diamond wheel gets very hot when operating.
- Always use the device with a safety hood.
  - A safety hood protects the user against broken parts of the diamond wheel and unintentional touching of the tool being used.
- Only work with a fully functioning and connected dust extractor.
  - When working without dust extraction, the construction cutter can be incapacitated within a short period.
- After finishing the work, first lift the device off the workpiece and then switch off.
- Protect persons or inflammable objects from flying sparks.
- Do not work on materials that release health-hazardous substances (e.g. asbestos).
- Do not rivet or screw labels or signs onto the device. This can prevent the protective insulation working. We recommend adhesive labels.
- Only use undamaged plugs and cables

## 7.3. Safety instructions: Personal safety equipment



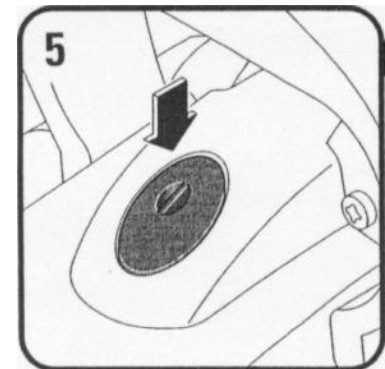
**When working with this device, wear the following safety equipment:**

-  **Gloves**
-  **Protective goggles**
-  **Strong shoes**
-  **Ear muffs**
-  **Apron**
-  **Dust protection mask (if needed)**



## 7.4. Operation: Work

- Approach the workpiece with the switched-on device, lead the cable away behind you.
- Always work in counter-rotation, so that the device does not jump out of section.
- ! Only press the stop button (5) when the device has stopped moving.



## 7.5. Operation: Switching on and off (1)



**Injury hazard:**

**Check before work:**


- Put the safety hood in completely open position and then let go.
  - The safety hood must return automatically into the completely closed position.
- 
- First check the cable and plug for damage.
  - Switching on:
    - Push switch (1) forwards (I).
  - Switching off:
    - Push switch (1) backwards (0).
  - At switch-on, the motor starts gently after a short delay.
  - If the power supply is interrupted when the device is switched on or the device is plugged in when switched on, the safety switch stops an automatic start-up. At initial operation switch the device off for a short time and switch on again.

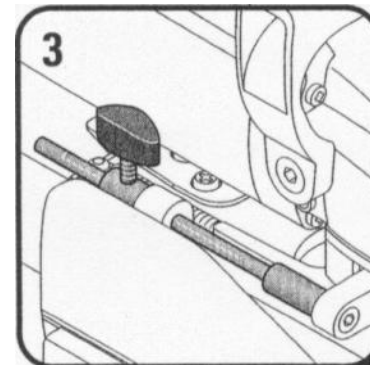


## 7.6. Operation: Setting depth stop (3).

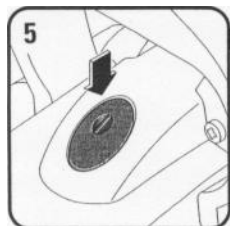


**Injury hazards:**

- ...through unintentional switch-on.
- Pull plug before setting procedure. 
- To set depth stop, release the wing screw, set the desired depth stop and then re-tighten the wing screw.

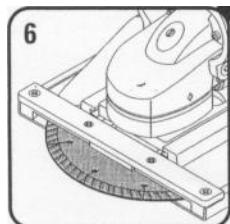


## 7.7. Operation: Changing diamond wheel (8).

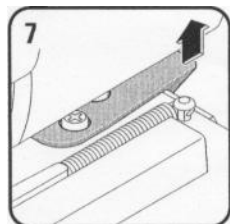


**Injury hazards:**

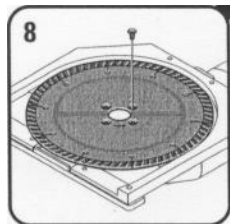
- ...through unintentional switch-on.
- Pull plug before changing procedure.



- Draw the holding shackle for the suction container (7) a few millimetres in the direction of the device.
- Pull the cover plate of the suction container backwards.
- Let go of the holding shackle and remove the cover plate completely.



- Press the stop button (5) and hold down, if necessary, turn the diamond wheel (6) slightly until it stops.
- Release the 4 fastening screws (8) and remove.
- Change diamond wheel (6).



- Tighten the 4 fastening screws (8), torque 1.8 - 2 Nm.
- Slide the cover plate onto the suction container until this is fixed by the holding shackle (7).



## 7.8. Operation: Cleaning and care



### Injury hazards:

- ...through unintentional switch-on.

- Pull plugs before cleaning work. 

Once a week, more often when used frequently:

- Clean cooling vents
- Blow out motor area from outside with dry compressed air



## 8. Parts, assignment, diagrams

- 8.1. Item list MF 12-180
- 8.2. Exploded view diagram

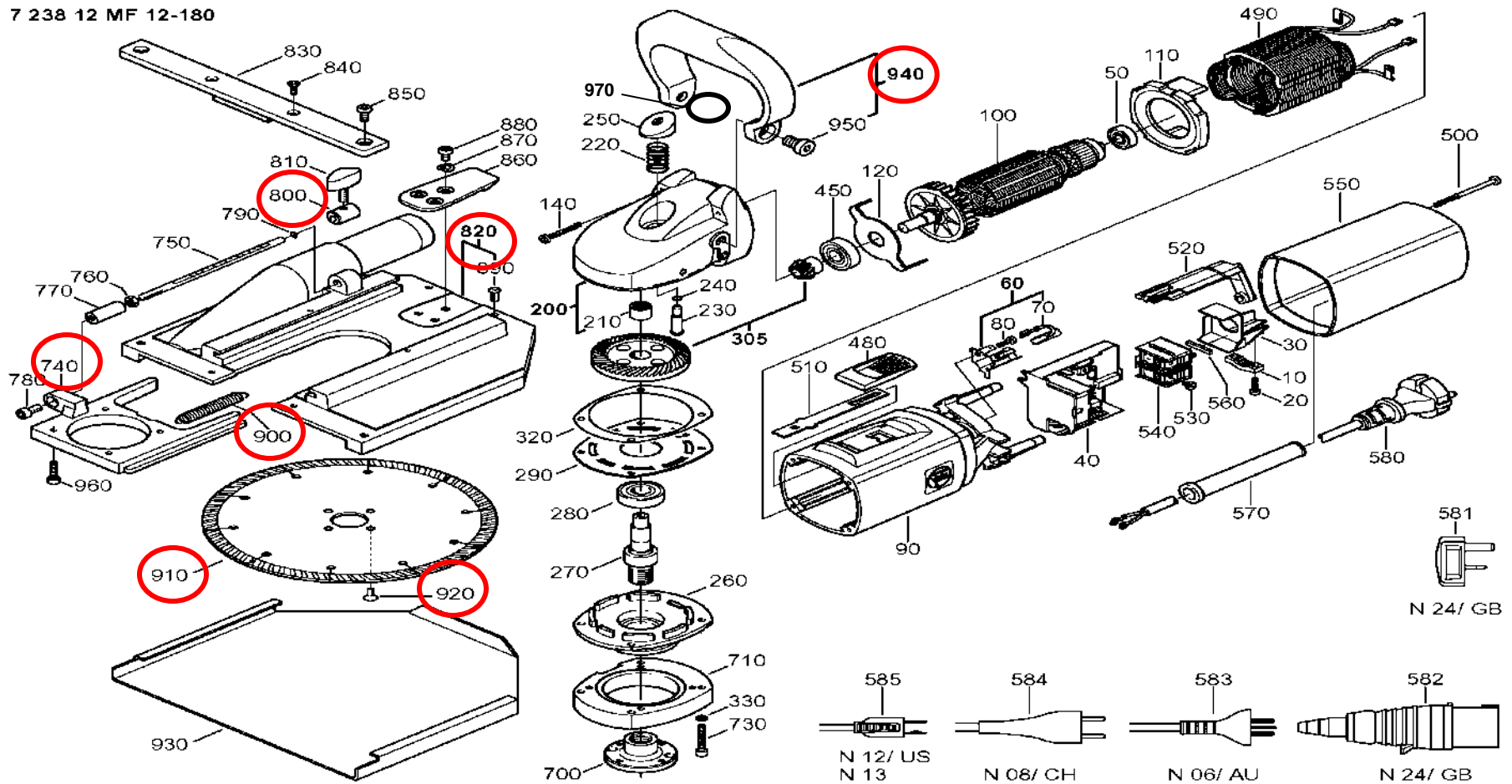
## 8.1. Item list construction cutter: MF 12-180 50Hz/230V



Item no.	pc.	Nomination	Article code	Item no.	pc.	Nomination	Article code
10	1	CABLE CLAMP PIECE	3 24 31 021 00 7	550	1	COVER	3 12 01 100 00 9
20	2	EJOT PT SCREW	4 30 70 001 00 6	560	1	PRESSER CUSHION	3 14 15 082 00 4
30	1	STRAIN RELIEF	3 24 31 040 00 6	570	1	PROTECTIVE HOSE	3 14 13 007 00 7
40	1	ELECTRONICS, assembl.spare part	3 07 62 206 99 7	580	1	CABLE, assembled	3 07 07 336 01 3
50	1	FLUTED BALL BEARING	4 17 01 001 17 2	700	1	ADAPTER	6 38 01 178 00 4
60	2	BRUSH HOLDER, assembled	3 07 12 088 01 3	710	1	SPACER PLATE	3 13 36 017 00 7
70	2	CARBON BRUSH	3 07 11 132 00 3	730	4	CHEESEHEAD SCREW	4 30 35 010 04 6
80	2	EJOT PT SCREW	4 30 70 018 00 9	740	1	GUIDE	3 13 36 010 00 2
90	1	MOTOR HOUSING	3 19 01 114 01 4	750	1	STOP ROD	3 13 36 011 00 1
100	1	ANCHOR	5 3 273 001 23 3	760	1	HEXAGON NUT	4 20 01 007 05 3
110	1	AIR PIPE RING	3 14 28 118 00 7	770	1	THREADED BUSH	3 13 36 012 00 4
120	1	CLOSING PLATE	3 24 16 098 00 5	780	1	CHEESEHEAD SCREW	4 30 35 013 05 8
140	4	EJOT PT SCREW	4 30 70 007 00 2	790	1	O-RING	3 13 36 013 00 8
200	1	GEARBOX CASE, assembled	3 12 06 133 01 9	800	1	STOP SLEEVE	3 13 36 014 00 6
210	1	NEEDLE SLEEVE	4 17 05 019 00 1	810	1	WING SCREW	3 13 36 015 00 0
220	1	COMPRESSION SPRING	3 09 01 032 00 3	820	1	BASE PLATE, assembled	3 13 36 002 01 4
230	1	STOP BOLT	3 02 17 327 00 3	830	1	SLIDE RULER	3 13 36 006 00 4
240	1	ROUND SEALING RING	4 06 12 137 00 8	840	2	COUNTERSUNK SCREW	3 13 36 007 00 8
250	1	PUSHBUTTON	3 28 05 185 00 2	850	2	CHEESEHEAD SCREW	3 13 36 008 00 6
260	1	BEARING PLATE	3 24 19 115 00 6	860	1	CATCH HOOK	3 13 36 003 00 9
270	1	DRIVE SHAFT	3 34 06 284 00 9	870	3	FLAT SPRING	3 13 36 020 00 1
280	1	FLUTED BALL BEARING	4 17 01 010 05 4	880	3	CHEESEHEAD SCREW	3 13 36 005 00 1
290	1	CLOSING PLATE	3 24 16 101 00 9	890	2	SEMI-CIRC.GROOVED DRIVE STUD	3 13 36 004 00 7
305	1	BEVEL GEAR (teeth=9/44)	3 38 09 229 01 2	900	2	TENSION SPRING	3 13 36 016 00 3
320	1	COMPENSATING WHEEL	3 26 24 117 00 9	910	1	DIAMOND WHEEL	6 35 02 146 01 1
330	4	SECURING WHEEL	4 24 43 003 04 3	920	4	COUNTERSUNK SCREW	4 30 69 005 04 4
450	1	FLUTED BALL BEARING	4 17 01 007 26 6	930	1	BASE PLATE	3 13 36 009 00 0
480	1	SWITCH SLIDE	3 28 05 156 00 8	940	1	HANDLE; assembled	3 13 36 018 01 4
490	1	FIELDMAGNET WITH COIL	5 1 273 001 23 1	950	2	CHEESEHEAD SCREW	3 13 36 019 00 9
500	2	EJOT PT SCREW	4 30 70 017 00 1	960	4	CHEESEHEAD SCREW	4 30 35 008 04 0
510	1	MULTIPLE SWITCH STRIP	3 28 16 055 00 0	970	1	TOOTHED WHEEL spring-mounted	4 24 39 006 08 3
520	1	SWITCH ROD	3 28 16 052 00 4	5000	1	TOOL CASE,+H32 assembled	3 39 01 108 01 6
530	2	OVAL HEAD SCREW	4 30 41 039 99 9	6000	1	GREASE TUBE cml. (0.085 kg)	3 21 60 003 01 4
540	1	SWITCH	3 07 01 218 00 3	6010	1	GREASE TUBE cml. (0.085 kg)	3 21 60 003 06 1
		Cleaning block / Whetstone	6 39 03 119 00 8	9000	1	OPERATING MANUAL	3 41 01 041 06 0

## 8.2 Exploded view diagram

7 238 12 MF 12-180







## 9. Info on diamond wheel

- 9.1. Sharpening diamond wheel
- 9.2. Heat damage to diamond wheel
- 9.3. Wear and tear specifications of diamond wheel
- 9.4. Material machining

## 9.1. Sharpening of diamond wheel

- If the cutting performance of the diamond wheel should deteriorate, it can be honed once more to optimal cutting status using a whetstone specially developed for the purpose, or a ceramic sharpening plate.

**Cleaning block (whetstone): 6 39 03 119 00 8**



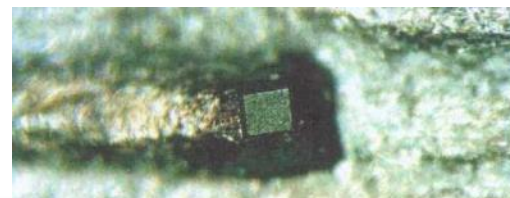
- **Procedure:**

**Make up to two or three cuts in the sharpening plate with the diamond wheel. The material of the sharpening plate causes the binding to be set back, so that new cutting diamonds are brought to the surface.**

Before sharpening



After sharpening



## 9.2. Heat damage to diamond wheel

**new**



**strong overheating**

Saw can be re-sharpened using ceramic sharpening plate



**extremely overheated**

Saw cannot be sharpened any more (uneconomic)



**slightly overheated**

Saw can be re-sharpened with the sharpening plate



**Do not use diamond wheels once they have fissures or cracks!**

**extremely overheated with contour deformation**


Saw cannot be used any more



Die Unebenheit des Stammblasses muss kleiner als der Belagüberstand Ü1 bzw. Ü2 sein.



## 9.4. Material machining

WERKSTOFF	 SBF
Asphalt	N
Beton abrasiv	B
Beton	S
Beton Dachpfannen	S
Beton hart	S
Beton leicht armiert	G
Betonsteine	S
Bimsstein	B
Estrich/Putz	B
Feuerfeststeine weich	B
Gasbeton	G
GFK	G
Gneis	G
Granit	G
Kalksandstein hart	S
Kalksandstein weich	B
Klinkersteine	B
Marmor	N
Poroton	G
Porphyr	B
Sandstein	B
Schiefer	B
Schlackenbeton	B
Tonziegel + -platten	S
Waschbeton	S
Keramikfliesen	B

S	sehr gut geeignet	hohe Lebensdauer in Verbindung mit höchster Schnittigkeit
G	gut geeignet	hohe Lebensdauer und gute Schnittfreudigkeit
B	bedingt geeignet	bei ausschließlichem Einsatz auf diesen Werkstoffen ist verminderte Lebensdauer oder verminderte Schnittfreudigkeit (Überhitzung) zu erwarten
N	nicht geeignet	beim Einsatz auf diesen Werkstoffen tritt entweder extrem hoher Belagverschleiß oder ein Abstumpfen und Überhitzen des Belages auf

### Extra info on diamond wheel:

It is normal for diamond wheels with ribbed cutting coating to show “jagged” wear and tear. The lateral gaps mean that the coating has less volume at the sides than in the middle, thus causing more intensive wear.

The jagged effect depends on the material. The more abrasive the material, the greater the jagged effect of the coating.



## 10. User help

### Info page, Power point handling with hyperlinks and their meaning

1. With underlined digits in brackets, e.g.: (222), you can refer directly to the exploded view diagram. To return to starting point, click [>Back<](#)
2. Click underlined terms once, e.g.: Technical Data, for direct access to relevant chapter.
3. To end the presentation, right-click mouse or Esc

