Repair instructions

Applies to:

RS17-70E

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1 Models described

These repair instructions describe how to repair the following models:

Model	Material number
RS17-70E	7 222 75

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2 Technical data

Technical data

The complete technical data can be found in the operating instructions for the model.

Special tools

The special tools catalogue can be found in the FEIN electronic information system.

Lubricants and auxiliary substances

The lubricants catalogue can be found in the FEIN electronic information system.

Lists of spare parts

Lists of spare parts and exploded views are available online in our spare parts catalogue, which can be accessed via the FEIN website.

Connection diagram

The connection diagram can be found in the FEIN electronic information system.

Documents required for further repair work

- FEIN lubricants catalogue
- FEIN special tools catalogue
- All relevant service communications

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3 Symbols used

	Refers to measures for avoiding the risk of injuries.
	Caution: danger of crushing.
	Caution: danger of cutting.
	ESD warning symbol to identify electrically sensitive components and parts.
	Refers to information or instructions that should be followed. Non-observance can result in damage or malfunctions.
	Read the operating instructions.
	This spare part must always be replaced after disassembly.
	Indicates notes that provide information or instructions that may provide a better understanding and contribute to the more effective use of the product.
	Part of the navigation interface.

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4 Notes and requirements

Please note

These instructions are only intended for persons with suitable technical training. It is assumed that the reader has mechanical and electrical training.

Only use original FEIN spare parts!

 Read the operating instructions for the product before carrying out any repair work.

Provisions

Please note that power tools may only be repaired, maintained and checked by a trained electrician, as improper repair can result in serious risks to the user.

Outside Germany, the regulations applicable in the respective individual country must be observed.

The provisions set out in ***DIN VDE 0701-0702*** should be observed after repairs.

The relevant accident prevention regulations are to be observed during commissioning.

The German Equipment and Product Safety Act [ProdSG] applies for correct use.

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5 Safety instructions

5.1 Structure

Signal word for the danger classification.

Type and source of the danger.

Possible consequences.

Measure that must be taken in order to avoid this danger.

5.2 Danger classification

Warning

This warning refers to a dangerous situation. If the situation is not avoided, this may result in severe injuries or death.

Warning!

Type and source of the danger.

Possible consequences.

Measure that must be taken in order to avoid this danger.

Caution

This warning refers to a potentially dangerous situation. If the situation is not avoided, this may result in slight or minor injuries. This may also be used as a warning against material damage.

Caution!

Type and source of the danger.

Possible consequences.

Measure that must be taken in order to avoid this danger.

Please note

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Indicates a potentially harmful situation. If this situation is not avoided, the product or an object in its environment could be damaged.

Please note:

Type and source of the danger.

Damage to the product or its environment.

Measure that must be taken in order to avoid this danger.

5.3 Information

Indicates notes that provide information or instructions that may provide a better understanding and contribute to the more effective use of the product.

Information

Tip

5.4 ESD protection

Damage from electrostatic charge.

Failure to comply with the safety regulations for ESD protection may cause damage to the electronics.

Only perform assembly/disassembly work on electronics at a workstation with ESD protection.

ESD

Avoiding the failure of electronics

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6 Tools, lubricants and auxiliary substances required

6.1 Standard tools

Slotted screwdriver	
Plastic hammer	
Torx	T15, T20
Open-end wrench	SW 10, SW 13, SW 14, SW 22
Torque wrench	Size 13
Socket head wrench	3 mm; 4 mm; 5 mm; 6 mm
Punch	5 mm diameter; 6 mm diameter
Arbor press	
Ball bearing support	19 mm; 26 mm
Sleeve	35 mm inner diameter 19 mm outer diameter 14 mm inner diameter 42 mm outer diameter 30 mm inner diameter 20 mm outer diameter 15 mm inner diameter 27 mm outer diameter 15 mm inner diameter 40 mm outer diameter 26 mm inner diameter 50 mm outer diameter 40 mm inner diameter
4x round material	20 mm in diameter Length 60 mm
Arbor	7 mm outer diameter Length 95 mm

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6.2 Special tools

Pipe	SW0002
Drawing-off plate	SW0010
Drawing-off socket cap	SW0016
Chuck cone	SW0019 19 mm diameter (64107019007) 26 mm diameter (64107026000)
Pressure piece	SW0038
Assembly aid	SW0045

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6.3 Lubricants and auxiliary substances required

Grease	SM0001	29 g	Gearbox
Grease	SM0015	n/a	Tensioning arm
Thread locking compound	Loctite 243	n/a	Screws

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7 Test and diagnostics options

Test data

The permitted parameters for the machine can be found in the FEIN electronic information system.

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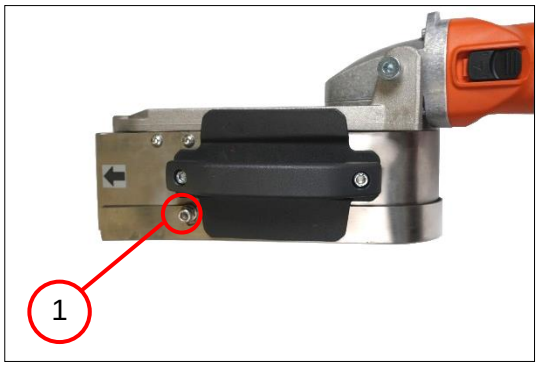
8 Disassembly

8.1 Removing the grinding arm

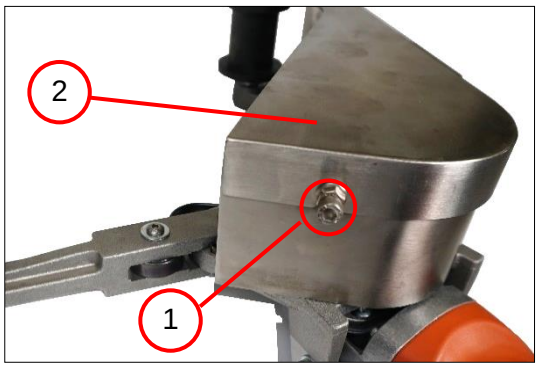
8.1.1 Removing the cover

Tools:

- Open-ended spanner, WAF 10



1. Loosen the two nuts (**1**).



2. Remove the cover (**2**).

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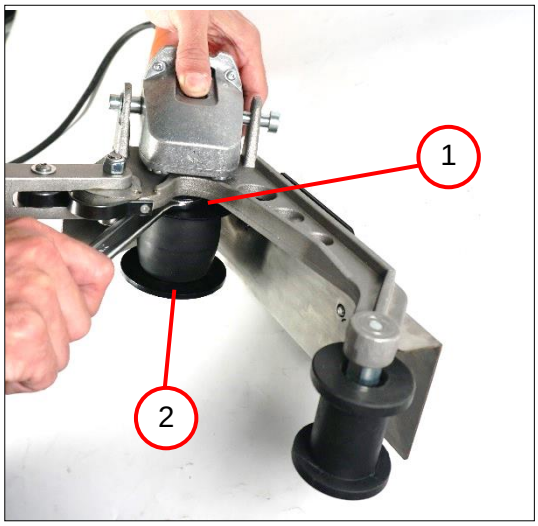
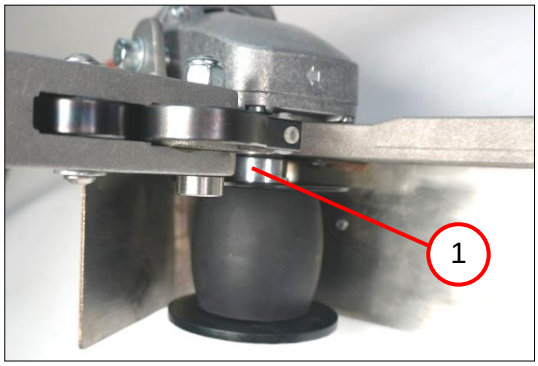
8.1.2 Removing the drive roller

Steps that must be completed: - Removing the cover
Tools: - Open-ended spanner, WAF 22





1. Lock the drive roller (**1**) with the pushbutton.
2. Loosen the drive roller.
3. Remove the drive roller (**2**).

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8.1.3 Disassembling the drive roller

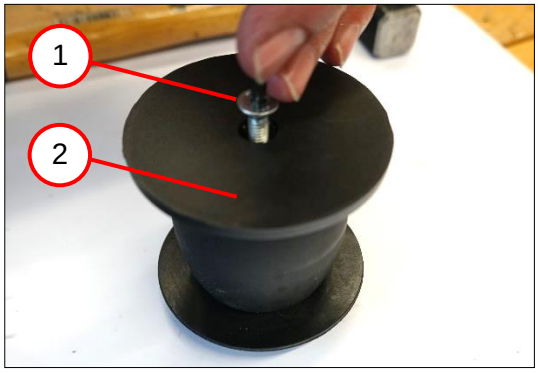
Steps that must be completed:

- Removing the drive roller

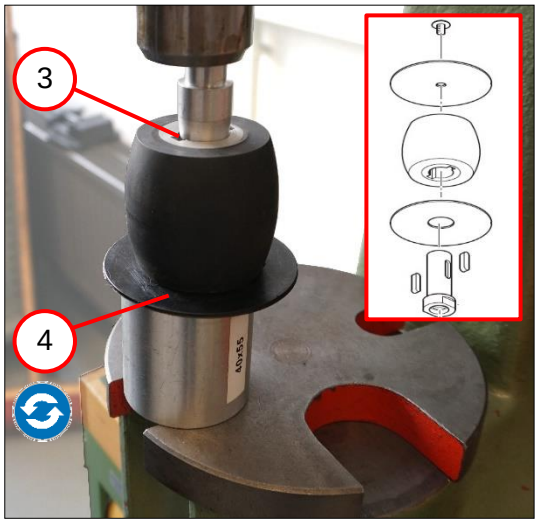
Tools:

- Socket head wrench, 4 mm
- Arbor press
- Arbor
- Pliers
- Sleeve

  26 mm inner diameter
  40 mm outer diameter



1. Unscrew the screw (**1**).
2. Remove the washer (**2**).



3. Press out the shaft (**3**).
4. Remove the washer (**4**).

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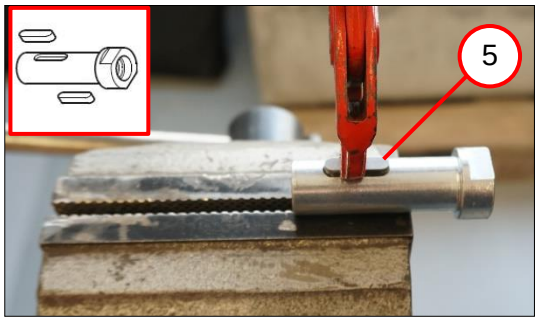

5. Remove the two feather keys (**5**).

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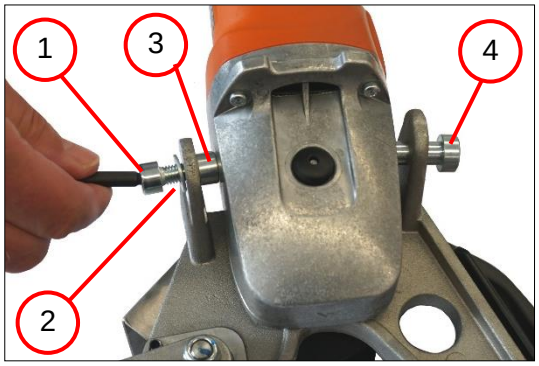
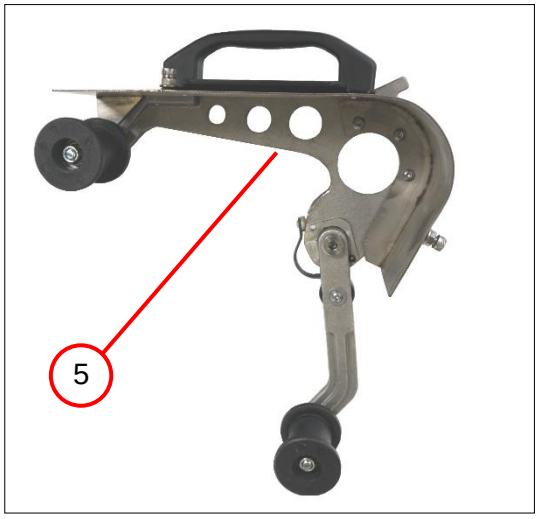
8.1.4 Removing the grinding arm

Steps that must be completed: - Removing the drive roller
Tools: - Socket head wrench, 6 mm - Rubber hammer



1. Unscrew the screw (**1**).
2. Remove the washer (**2**).
3. Remove the bushing (**3**).
4. Unscrew the screw (**4**).

5. Remove the grinding arm (**5**).



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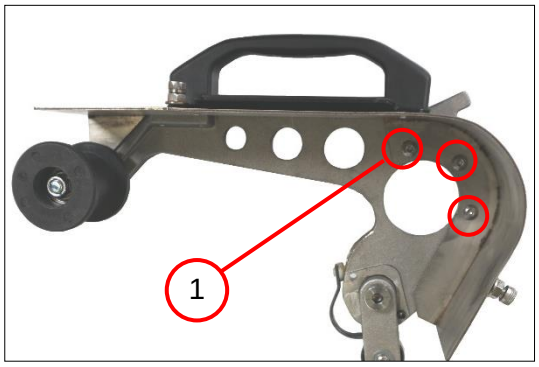
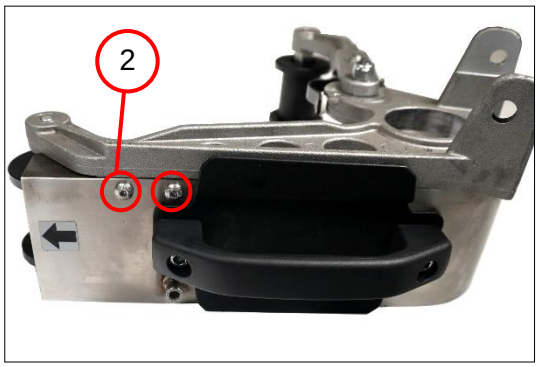
8.2 Disassembling the grinding arm

8.2.1 Removing the safety hood

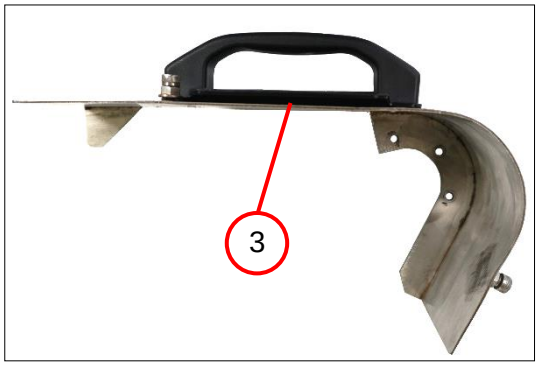
Steps that must be completed: - Removing the grinding arm
Tools: - Socket head wrench, 3 mm



1. Unscrew the three screws (**1**).



2. Unscrew the two screws (**2**).
3. Remove the safety hood (**3**).



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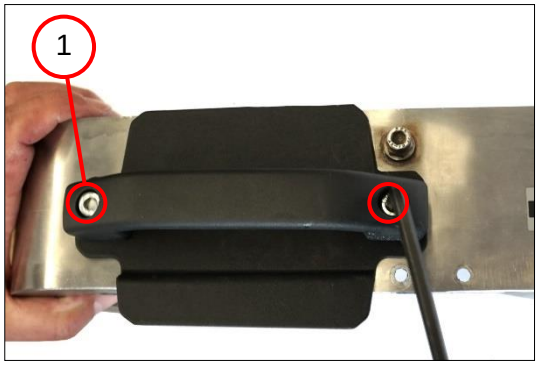
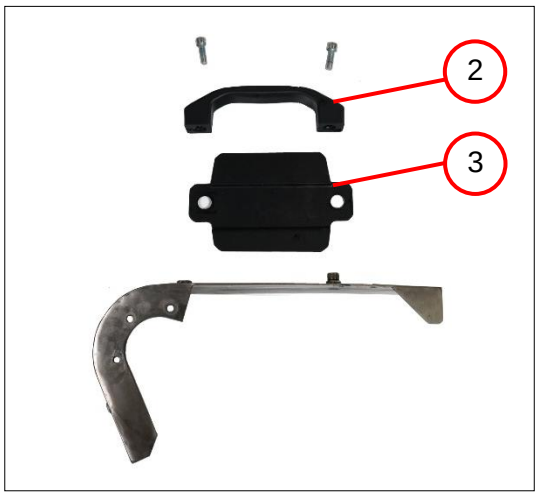
8.2.2 Removing the handle

Tools:

- Socket head wrench, 3 mm



1. Unscrew the two screws (**1**).



2. Remove the handle (**2**).
3. Remove the plate (**3**).

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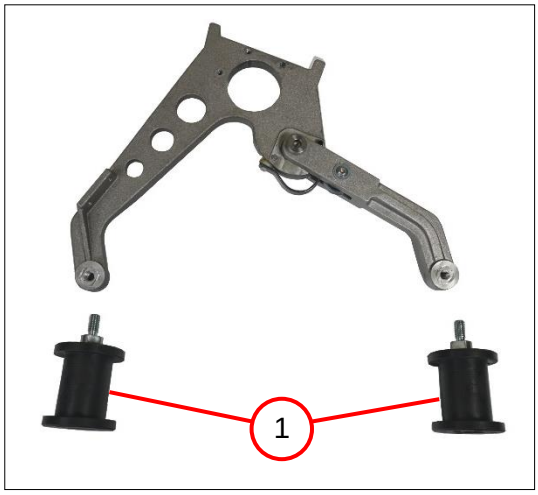
8.2.3 Removing rollers

Tools:

- Open-ended spanner, WAF 14
- Punch, 5 mm
- Rubber hammer



1. Loosen the axle.
2. Remove the two rollers (**1**).

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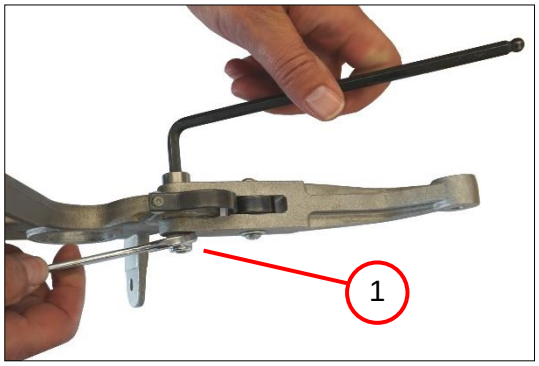
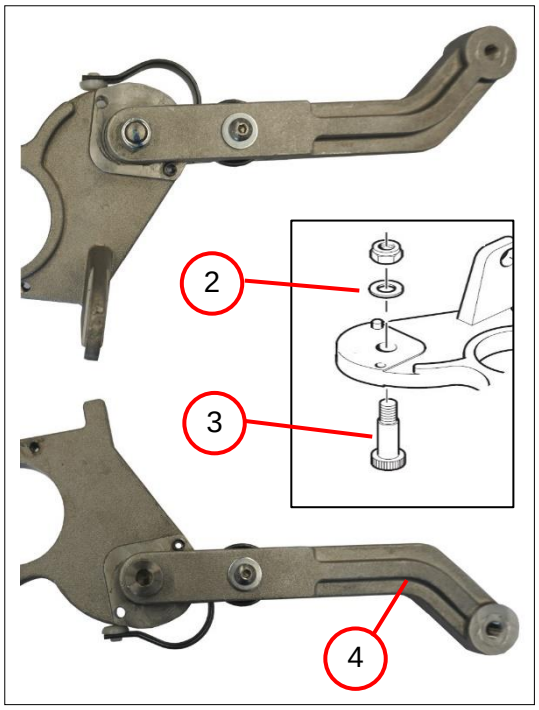
8.2.4 Removing the tensioning arm

Steps that must be completed: - Removing the grinding arm
Tools: - Socket head wrench, 6 mm - Open-ended spanner, WAF 13



1. Unscrew the nut (**1**).



2. Remove the washer (**2**).
3. Remove the screw (**3**).
4. Remove the tensioning arm (**4**).

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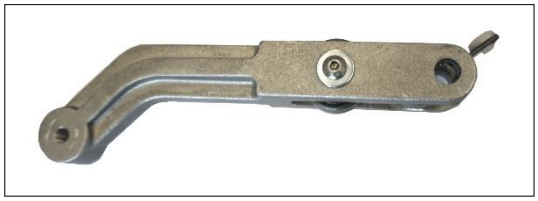
8.2.5 Disassembling the tensioning arm

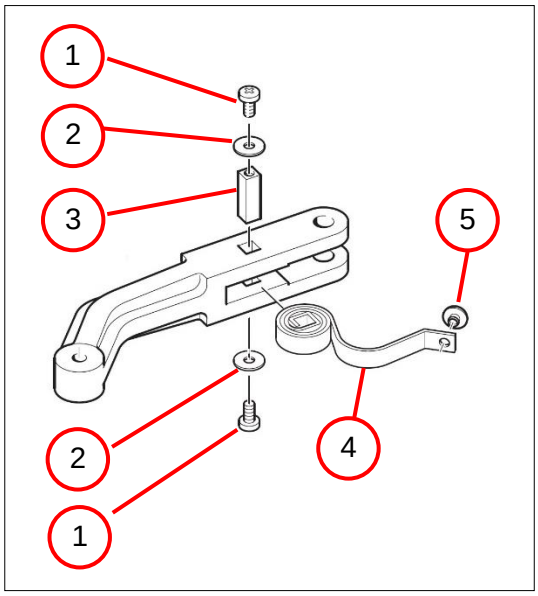
Steps that must be completed:

- Remove tensioning arm

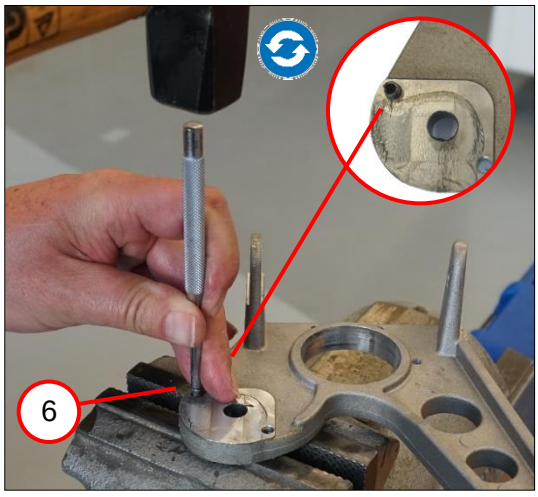
Tools:

- Socket head wrench, 3 mm
- Rubber hammer
- Punch, 5 mm





1. Unscrew the two screws (**1**).
2. Remove the two discs (**2**).
3. Remove the bolt (**3**).
4. Remove the spring (**4**).
5. Remove the pressure piece (**5**).



6. Remove the sleeve (**6**).

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8.3 Removing the drive unit

8.3.1 Quick mains cable replacement

Tools:

- Torx T15
- Assembly aid WAF 0045

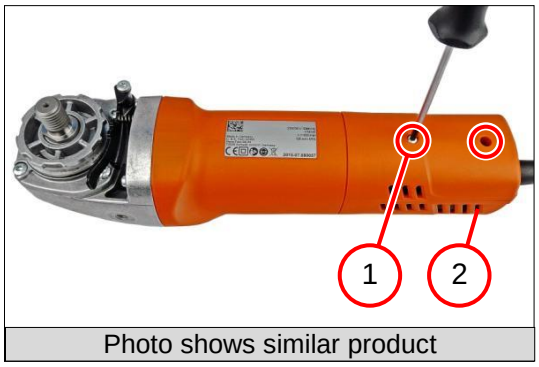
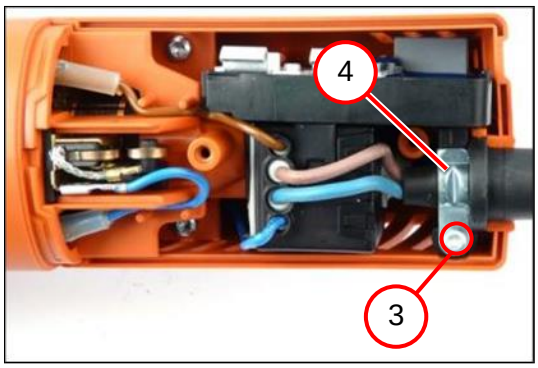


Photo shows similar product

1. Unscrew the two screws (**1**).
2. Remove the cover (**2**).



3. Unscrew the screw (**3**).
4. Remove the cable clamp (**4**).

Photo shows similar product

5. Remove the cover (**5**).

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8.3.1 **Quick mains cable replacement**

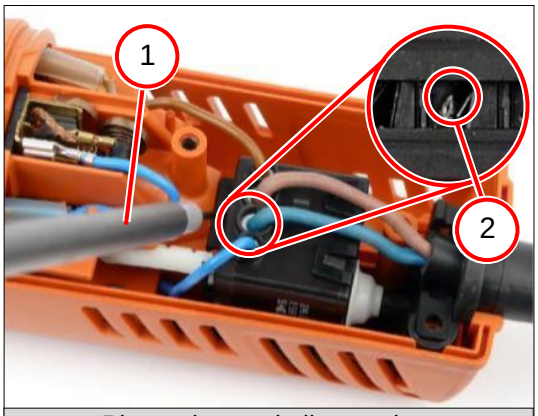

Photo shows similar product

6. Position the hook (**1**) in the opening (**2**).

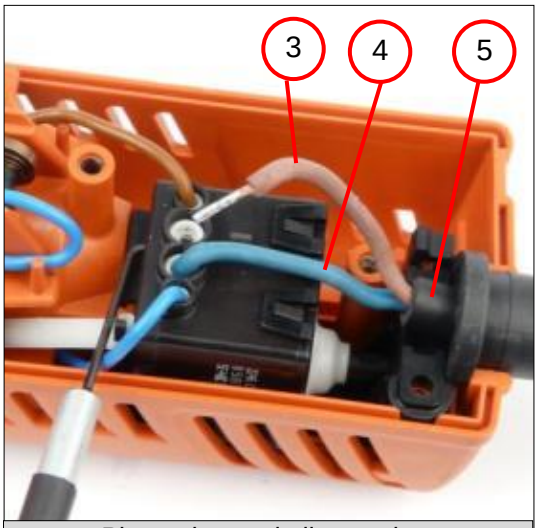

Photo shows similar product

7. Turn the hook and remove the cable (**3**).
8. Turn the hook and remove the cable (**4**).
9. Remove the cable with the plug (**5**).

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8.4 Disassembling the housing

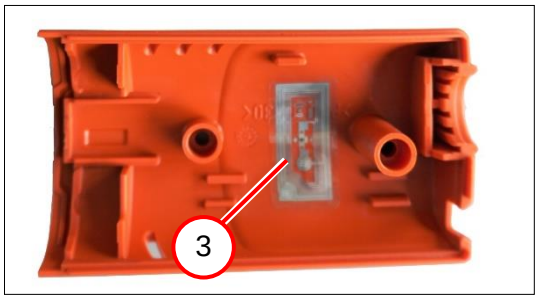
8.4.1 Removing the cover

Tools:

- Torx T15
- Assembly aid WAF 0045

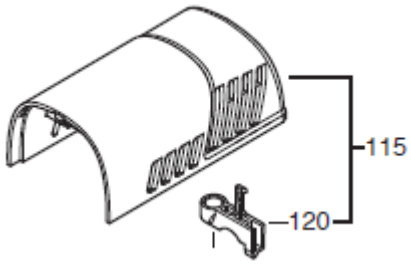
Photo shows similar product

1. Unscrew the two screws (**1**).
2. Remove the cover (**2**).



Information

When the cover is replaced, the RFID chip (**3**) also has to be changed and registered.



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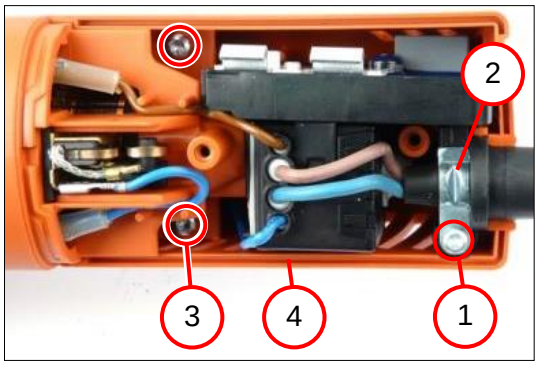
8.4.2 Dissembling the switch (230 V)

Steps that must be completed:

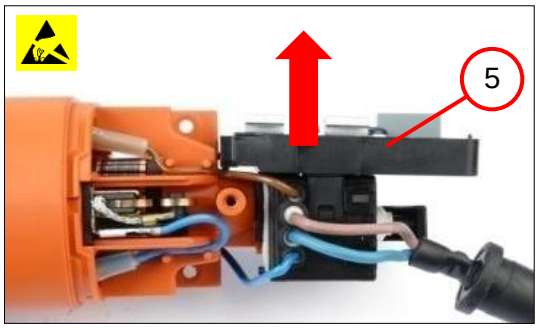
- Removing the cover

Tools:

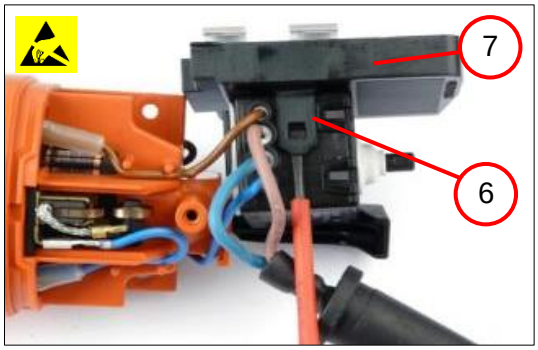
- Torx T15
- Slotted screwdriver (small)



1. Unscrew the screw (**1**).
2. Remove the cable clamp (**2**).
3. Unscrew the two screws (**3**).
4. Remove the cover (**4**).



5. Remove the switch (**5**).



6. Lift the hook (**6**) on each side of the switch and pull off the electronics (**7**).

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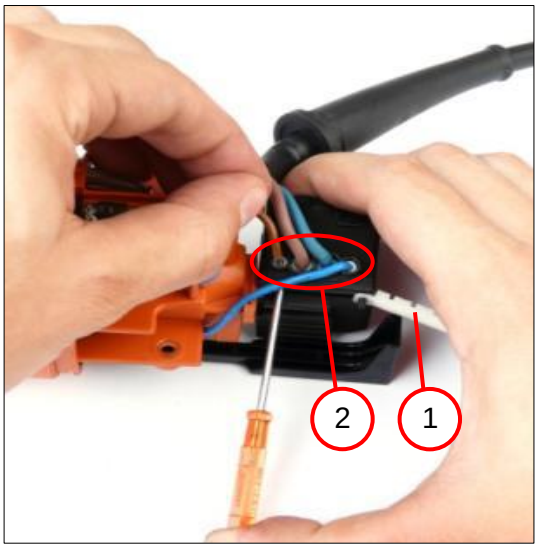
8.4.2 **Dissembling the switch (230 V)**



7. Remove the rubber cover (**1**).
8. Open the spring terminals by turning them.
9. Remove the four cables (**2**).

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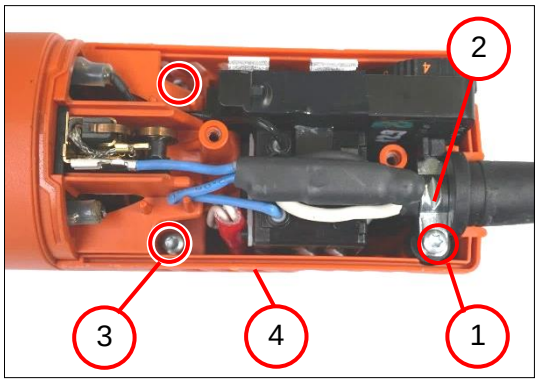
8.4.3 Dissembling the switch (120 V)

Steps that must be completed:

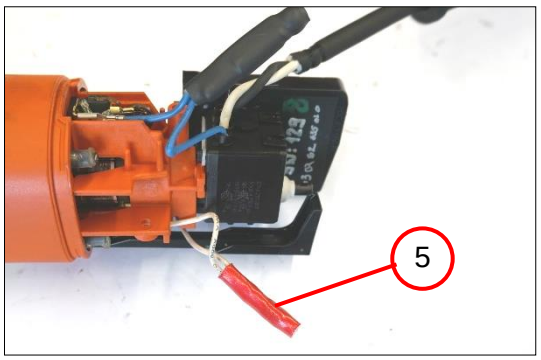
- Removing the cover

Tools:

- Torx T15
- Slotted screwdriver (small)

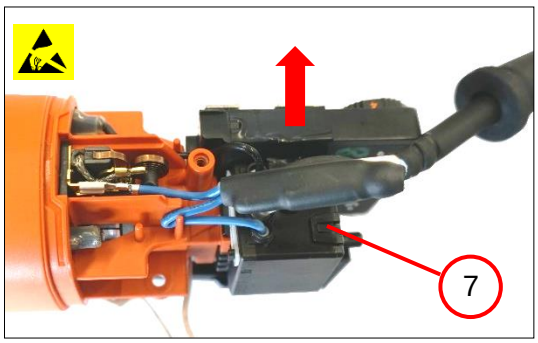


1. Unscrew the screw (**1**).
2. Remove the cable clamp (**2**).
3. Unscrew the two screws (**3**).
4. Remove the cover (**4**).



5. Remove the heat shrink tubing (**5**).

6. Disconnect the two cables (**6**).



7. Remove the switch (**7**).

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8.4.3 **Dissembling the switch (120 V)**

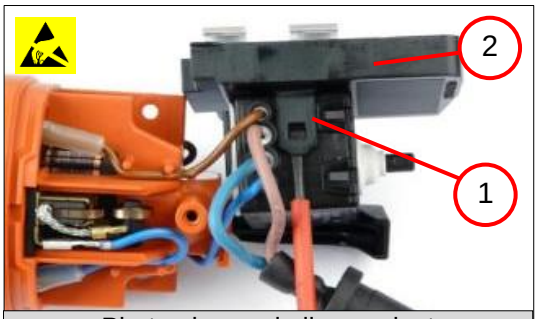

Photo shows similar product

8. Lift the hook (**1**) on each side of the switch and remove the electronics (**2**).

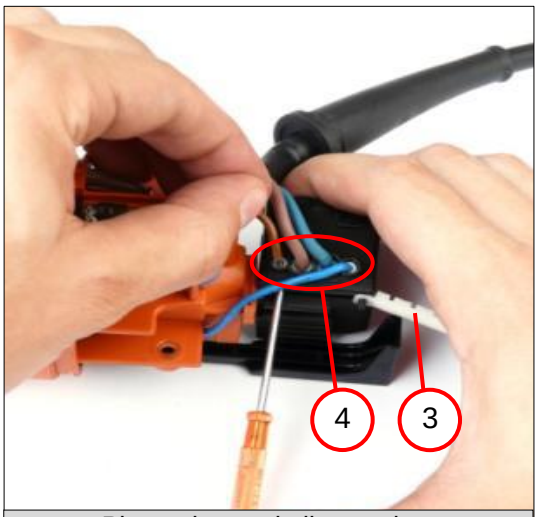

Photo shows similar product

9. Remove the rubber cover (**3**).
10. Open the spring terminals by turning them.
11. Remove the four cables (**4**).

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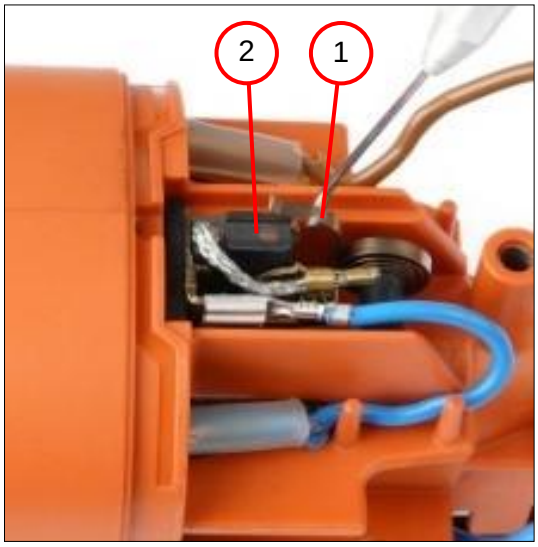
8.4.4 Removing the carbon brushes

Steps that must be completed: - Removing the cover
Tools: - Assembly aid WAF 0045



1. Lift up the spring (**1**).
2. Remove the carbon brush (**2**).

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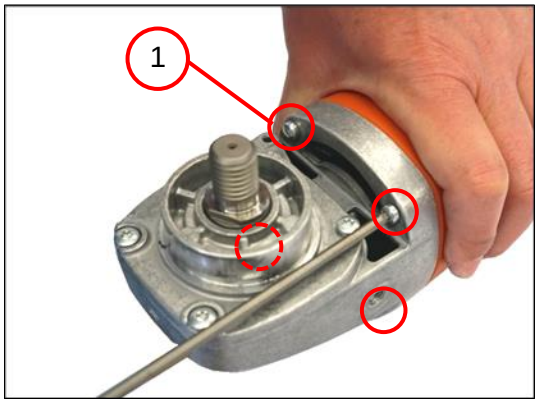
8.4.5 Removing the gearbox housing

Steps that must be completed:

- Removing the cover
- Removing the switch
- Removing the carbon brushes

Tools:

- Torx T20
- Torx T15



1. Unscrew the four screws (**1**).

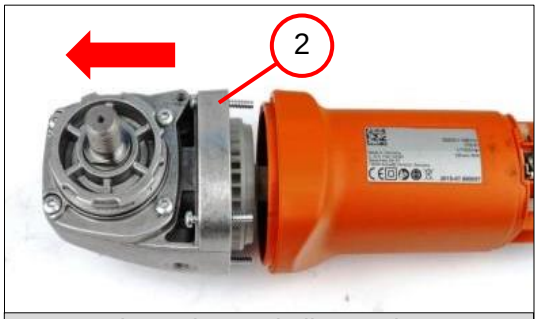


Photo shows similar product

2. Remove the gearbox housing (**2**).

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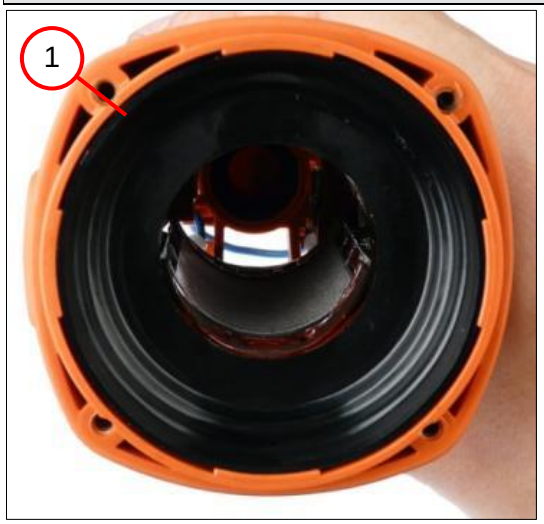
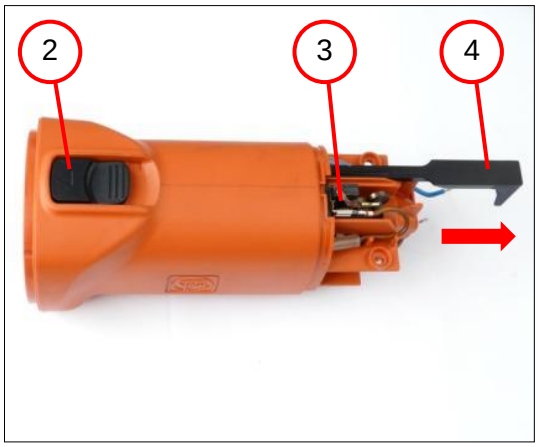
8.5 Removing the motor

8.5.1 Removing the stator

Steps that must be completed: - Removing the cover - Removing the switch - Removing the carbon brushes - Removing the gearbox housing
Tools: - Torx T20 - Torx T15 - Plastic hammer



1. Remove the air guide ring (1).



2. Remove the slide switch (**2**).
3. Remove the carbon brush holder (**3**).
4. Repeat step “5.” on the opposite side of the machine.
5. Remove the control rod (**4**).

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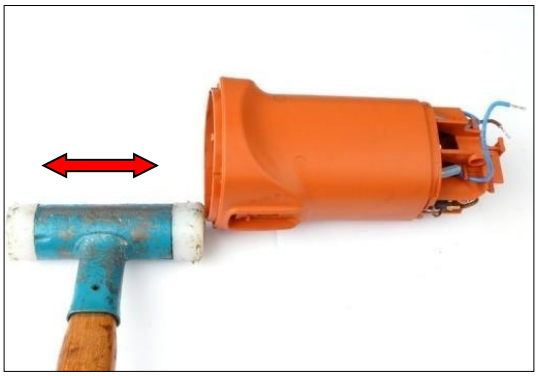
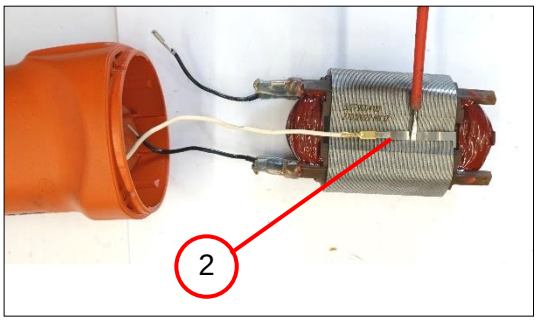
8.5.1 **Removing the stator**



6. Remove the stator (**1**).



Applies to machines with 120 V

7. Remove the contact spring (**2**).

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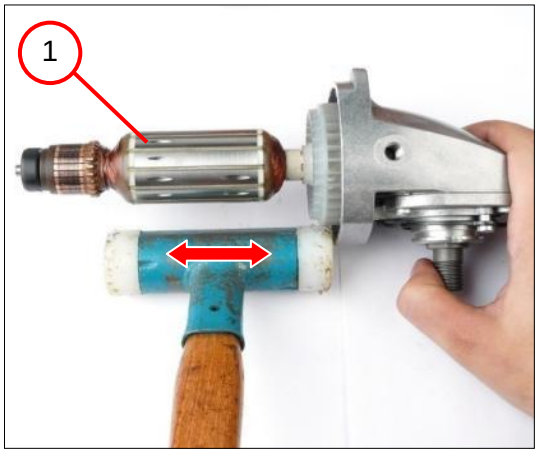
8.5.2 Removing the armature

Steps that must be completed:

- Removing the cover
- Removing the switch
- Removing the carbon brushes
- Removing the gearbox housing

Tools:

- Plastic hammer



1. Remove the armature (**1**).

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8.5.3 Disassembling the armature

Steps that must be completed:

- Removing the cover
- Removing the switch
- Removing the carbon brushes
- Removing the gearbox housing
- Removing the armature

Tools:

- Punch, 6 mm diameter
- Arbor press
- Drawing-off plate WAF 0010
- Pipe WAF 0002
- Drawing-off socket cap WAF 0016
- Chuck cone
  WAF 0019 26 mm
  WAF 0019 19 mm

1. Remove the bearing bush (**1**).

2. Remove the bevel pinion (**2**).

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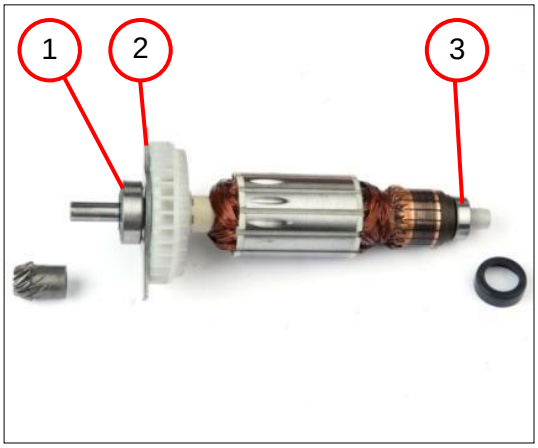
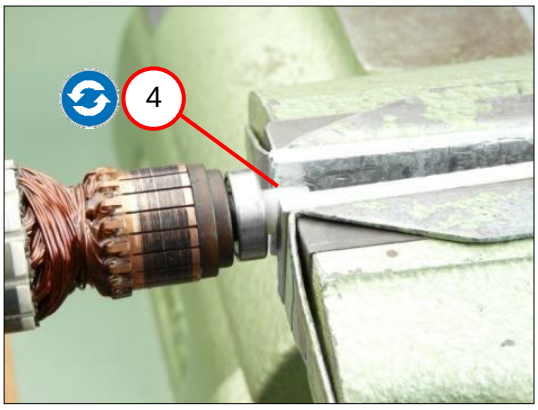
8.5.3 **Disassembling the armature**



3. Remove the deep groove ball bearing (**1**).
4. Remove the plate (**2**).
5. Remove the deep groove ball bearing (**3**).



6. Remove the magnet (**4**).

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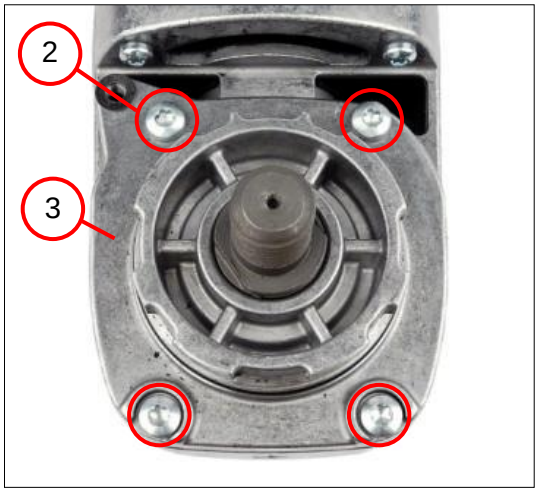
8.6 Removing the gearbox

8.6.1 Removing the bearing plate

Tools:

- Torx T20
- Assembly aid WAF 0045

1. Remove the sealing ring (**1**).



2. Unscrew the four screws (**2**).
3. Remove the bearing plate (**3**).

4. Remove the washer(s) (**4**).

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8.6.2 Disassembling the bearing plate

Steps that must be completed:

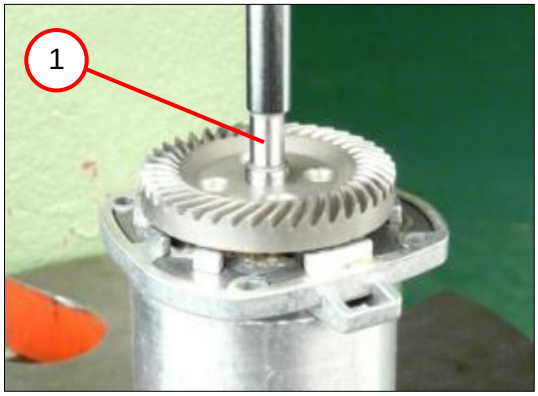
- Removing the bearing plate

Tools:

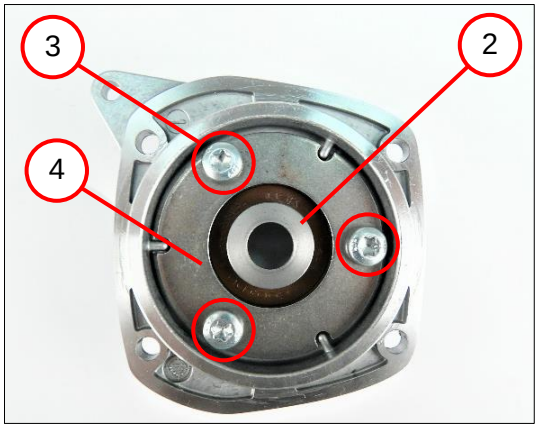
- Punch, 12 mm diameter
- Torx T15
- Arbor press
- Sleeve
  35 mm inner diameter

  14 mm inner diameter
  19 mm outer diameter

  30 mm inner diameter
  42 mm outer diameter



1. Press out the shaft (**1**).



2. Remove the disc (**2**).
3. Unscrew the three screws (**3**).
4. Remove the plate (**4**).

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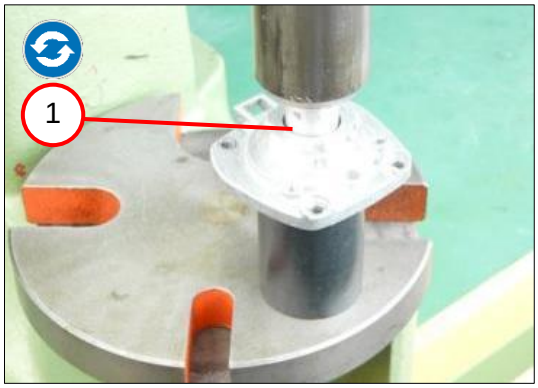
8.6.2 **Disassembling the bearing plate**



5. Press out the deep grooved ball bearing (**1**).

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8.6.3 Disassembling the gearbox housing

Steps that must be completed:

- Removing the cover
- Removing the switch
- Removing the carbon brushes
- Removing the gearbox housing
- Removing the bearing plate

Tools:

- Slotted screwdriver

1. Remove the air guide ring (**1**).

2. Remove the pushbutton (**2**).

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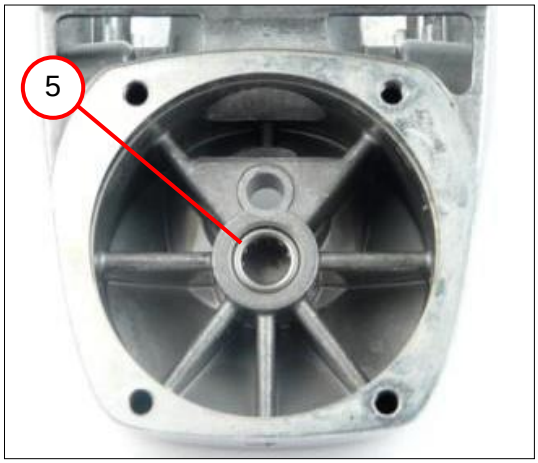
8.6.3 **Disassembling the gearbox housing**

3. Remove the spiral spring (**1**).
4. Remove the sealing ring (**2**).
5. Remove the bolt (**3**).



Information

Only remove the needle sleeve (**4**) if necessary.

6. Remove the needle sleeve (**4**).

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9 Assembly

9.1 Fitting the drive unit

9.1.1 Assembling the gearbox housing

1. Insert the spiral spring (**1**) and the bolt (**2**) with a sealing ring
(**3**).

2. Fit the pushbutton (**4**).

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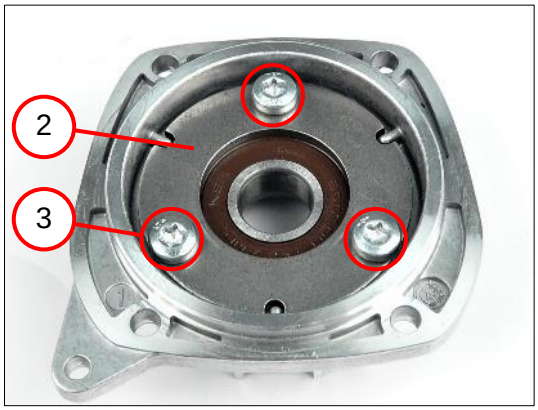
9.1.2 Assembling the bearing plate

Tools:

- Arbor press
- Sleeve
  15 mm inner diameter
  27 mm outer diameter

  15 mm inner diameter
  20 mm outer diameter
- Torx T15

1. Press in the grooved ball bearing (**1**).



2. Position the plate (**2**).
3. Screw in the three screws (**3**) [2.4 N].

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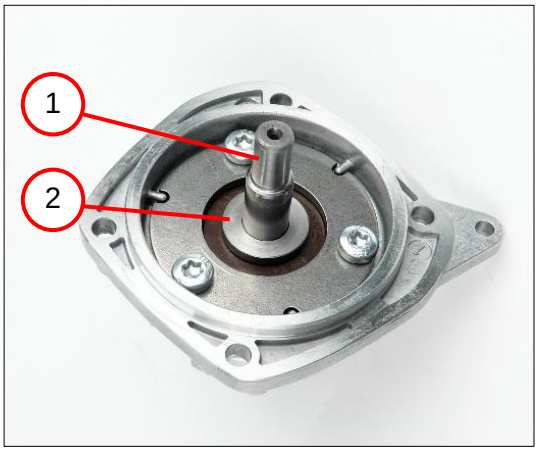
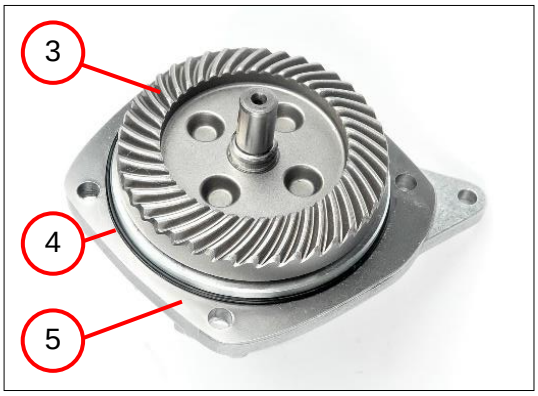
9.1.2 Assembling the bearing plate



4. Press in the shaft (**1**).
5. Position the washer (**2**).



6. Press in the gearwheel (**3**).
7. Coat the sealing ring (**4**) with oil.
8. Position the sealing ring (**4**).

Information

Use a new sealing ring every time for assembly

9. Position the washer(s) (**5**).

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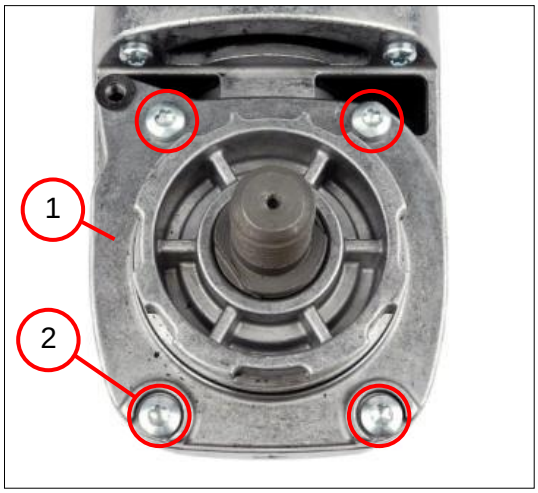
9.1.3 Positioning the bearing plate

Steps that must be completed:

- Assembling the gearbox housing
- Assembling the bearing plate

Tools:

- Torx T20



1. Position the bearing plate (**1**).
2. Screw in the four screws (**2**) [2.4 Nm].

3. Position the air guide ring (**3**).

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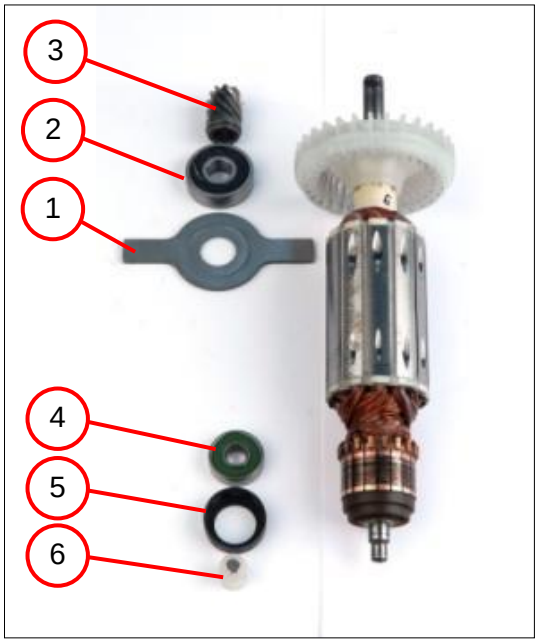
9.2 Assembling the motor

9.2.1 Assembling the armature

Tools:

- Torx T20



1. Position the plate (**1**).
2. Press on the grooved ball bearing (**2**).
3. Press on the bevel pinion (**3**).
4. Press on the grooved ball bearing (**4**).

Information

Use a new magnet for assembly each time.

6.

Note!

Damage to the magnet.

The magnet can be damaged by excessive force.

Carefully press on the magnet.

5. Press on the magnet (**5**).
6. Position the bearing bush (**6**).

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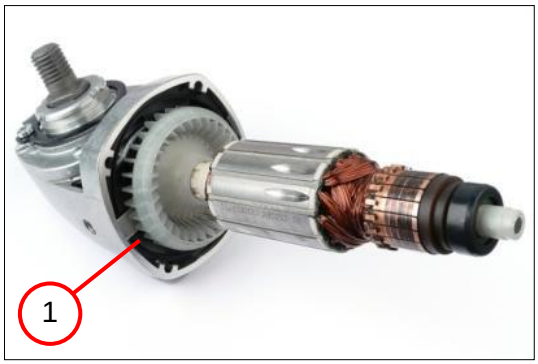
9.2.2 Positioning the armature

Steps that must be completed:

- Assembling the gearbox housing
- Assembling the bearing plate



1. Press in the armature (**1**).

Information

The plate must lie in the recess of the air guide ring.

Note!

Damage to the gearbox and/or the motor.

The axial displacement of the armature leads to damage to the gearbox and/or the motor.

If the armature can be pulled out of the gearbox head by hand, the gearbox housing must be replaced.

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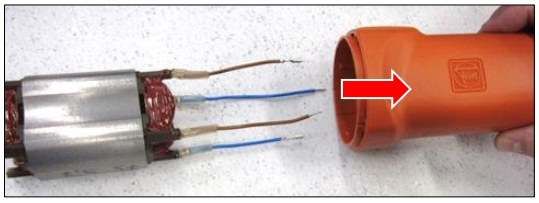
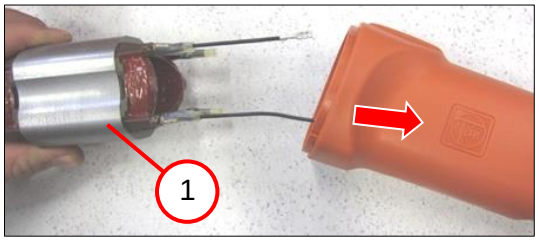
9.2.3 Fitting the stator

Tools:

- Arbor press
- Pressure piece 64122003000
- 4 x round material, 20 mm diameter; 60 mm length
- Assembly aid WAF XXX





1. Position the stator (**1**).

Information

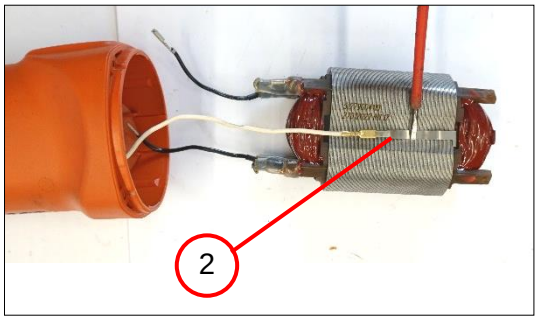
Ensure that the stator (**1**) is in the correct position.

With the 230 V version, the brown cables point to the Fein logo.

With the 120V version, the black cables point to the Fein logo.

Applies to machines with 120 V:

2. Pre-bend the contact spring.



3. Position the contact spring (**2**).

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9.2.3 **Fitting the stator**

4. Press in the stator (**1**).

5. Press down the contact spring with the assembly aid.

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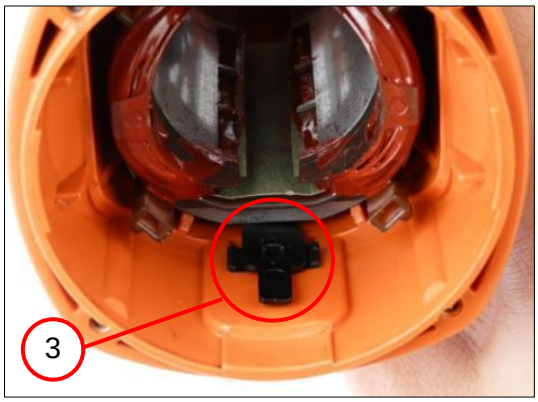
9.2.3 **Fitting the stator**

6. Position the control rod (**1**).
7. Position the slide switch (**2**).



8. Hook the control rod onto the slide switch (**3**).

9. Position the air guide ring (**4**).

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9.3 Setting gearbox clearance

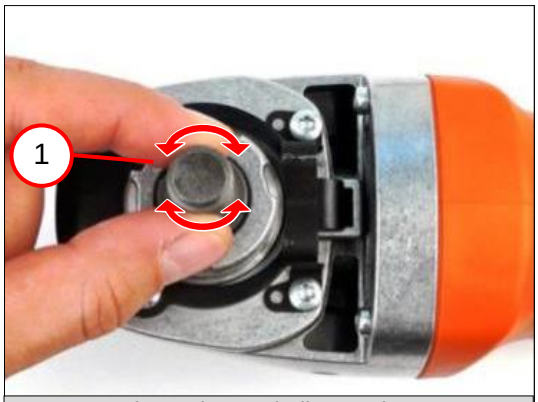

Photo shows similar product

1. Perform a test run.
2. Check gearbox clearance by turning the shaft (**1**).
3. If there is no gearbox clearance, a second disc must be placed between the bearing plate and the gearbox housing.

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9.4 Assembling the housing

9.4.1 Positioning the gearbox housing

Steps that must be completed: - Assembling the gearbox housing
Tools: - Torx T20

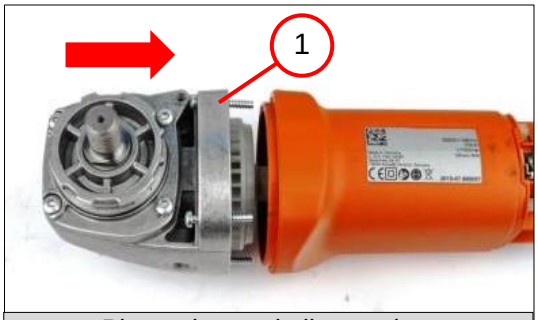
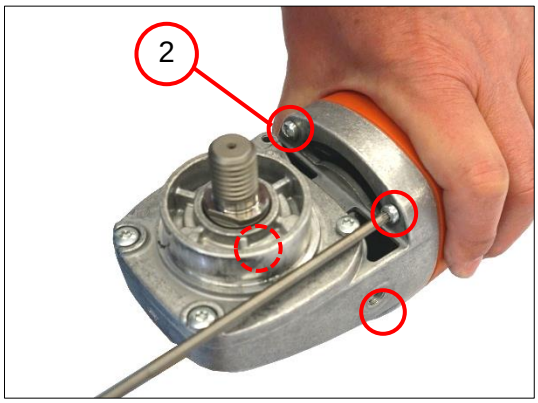


Photo shows similar product

1. Position the gearbox housing (**1**).



2. Screw in the four screws (**2**) [2.7 Nm].

Information

Screw in the screws crosswise.

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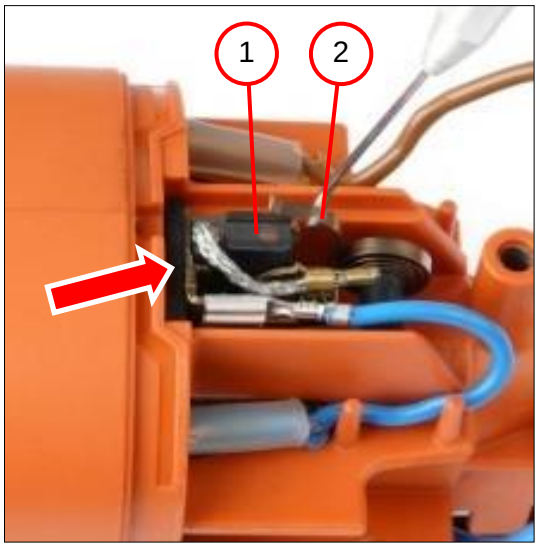
9.4.2 Positioning the carbon brushes

Steps that must be completed:

- Assembling the motor
- Positioning the gearbox housing

Tools:

- Assembly aid WAF 0045



Note!

Insert the carbon brushes correctly.

Cable breakage or pinching is possible.

Lay the cable in the recess of the carbon brush holder.

1. Position the carbon brush (**1**).
2. Position the spring (**2**).

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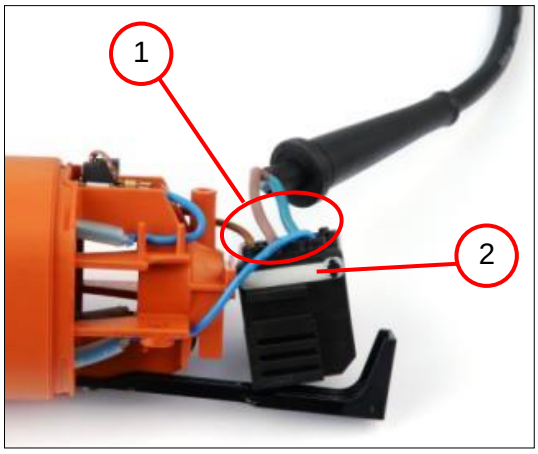
9.4.3 Assembling the switch (230 V)

Steps that must be completed:

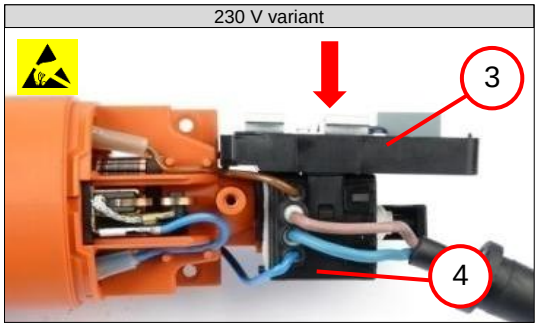
- Assembling the motor
- Positioning the gearbox housing

Tools:

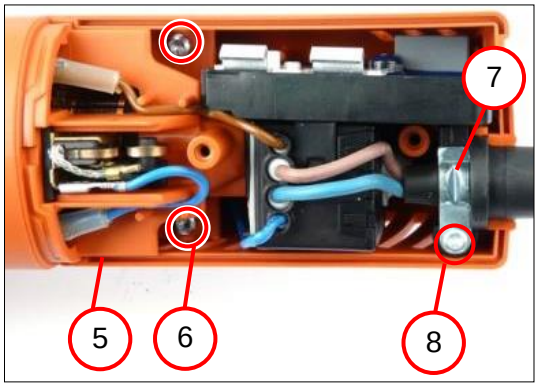
- Assembly aid SW 0045



1. Connect the cables (**1**).
2. Position the rubber cover (**2**).



3. Position the electronics (**3**) on the switch.
4. Position the switch (**4**).



5. Position the cover (**5**).
6. Screw in the two screws (**6**) [1.5 Nm].
7. Position the cable clamp (**7**).
8. Screw in the screw (**8**) [1.5 Nm].

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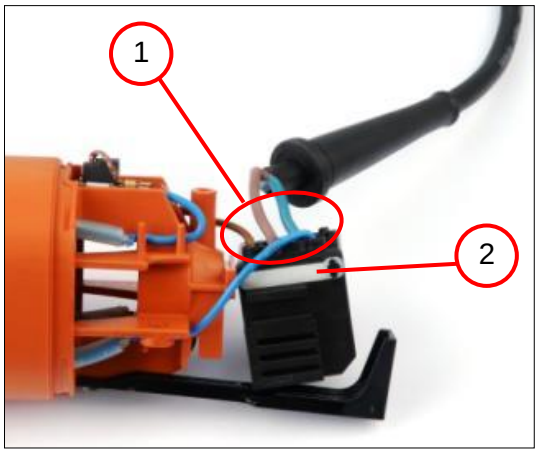
9.4.4 Assembling the switch (120 V)

Steps that must be completed:

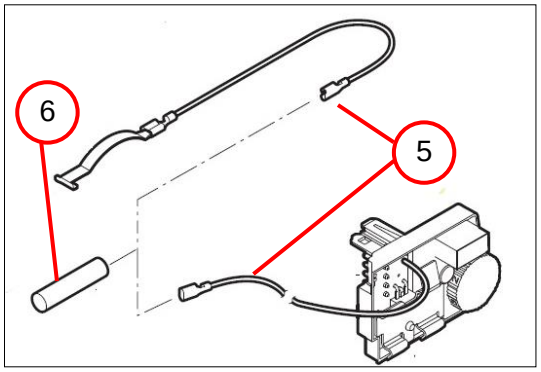
- Assembling the motor
- Positioning the gearbox housing

Tools:

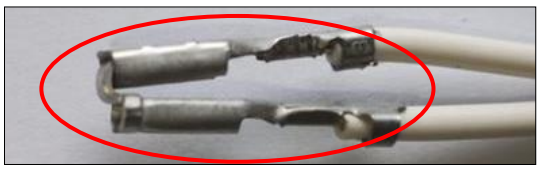
- Assembly aid SW 0045



1. Connect the cables (**1**).
2. Position the rubber cover (**2**).



3. Connect the two cables (**5**).
4. Position the heat shrink tubing (**6**).



Information

Ensure that the cables are in the correct position.

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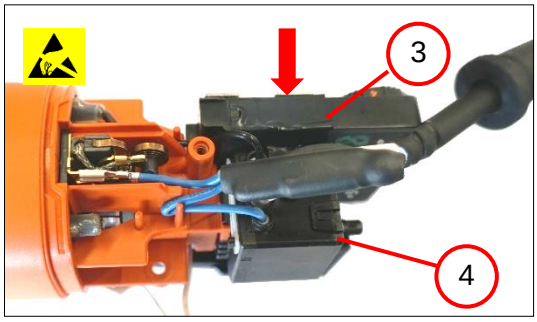
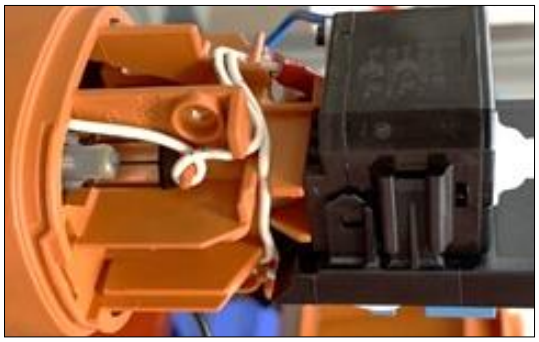
9.4.4 **Assembling the switch (120 V)**





5. Position the electronics (**3**) on the switch.
6. Position the switch (**4**).

Information

Ensure that the cables are in the correct position.

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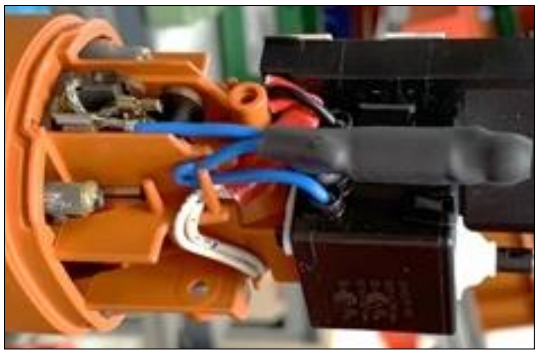
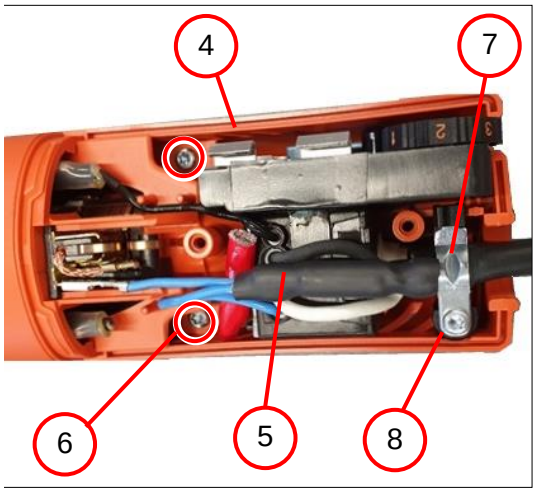
9.4.4 **Assembling the switch (120 V)**



Information

Ensure that the cables are in the correct position.



7. Position the cover (**4**).

Information

For machines with a choke (**5**), make sure that the choke is placed between the strands of the supply cable. The upper part of the cover cannot be fitted correctly if the choke is not placed correctly.

8. Screw in the two screws (**6**) [1.5 Nm].
9. Position the cable clamp (**7**).
10. Screw in the screw (**8**) [1.5 Nm].

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9.4.5 Fitting the cover

Steps that must be completed:

- Assembling the motor
- Positioning the gearbox housing
- Positioning the carbon brushes
- Fitting the switch

Tools:

- Torx T15

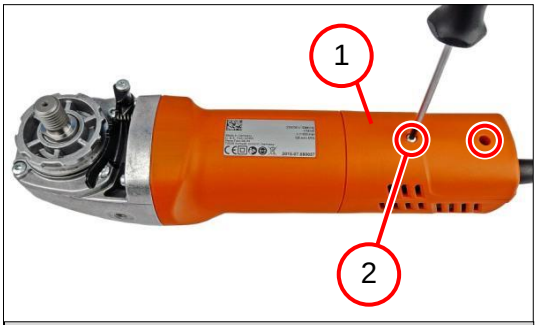

Photo shows similar product

1. Position the cover (**1**).
2. Screw in the two screws (**2**) [1.5 Nm].

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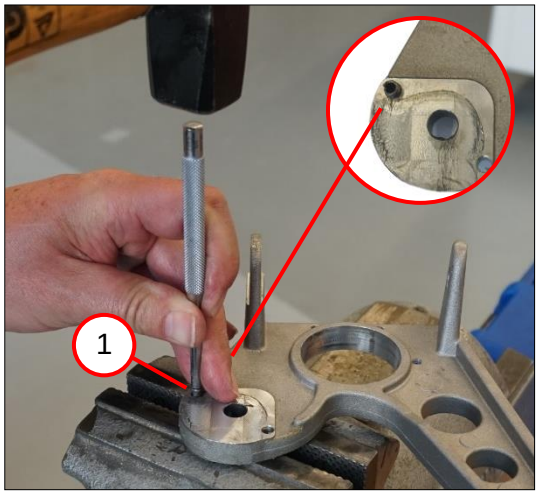
9.5 Assembling the grinding arm

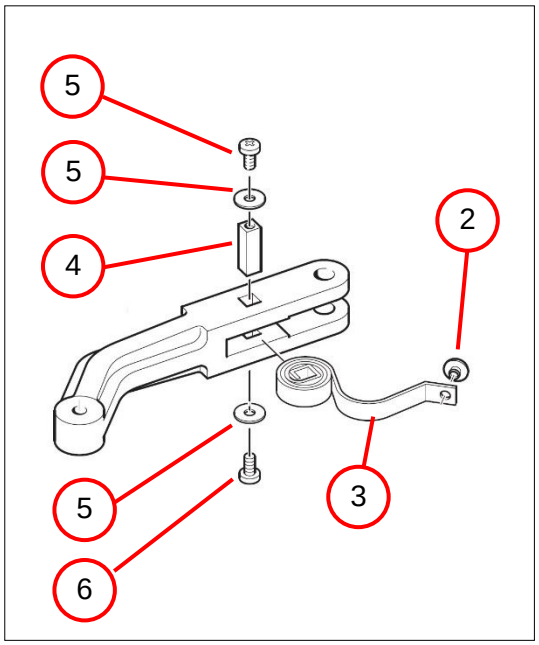
9.5.1 Fitting the tensioning arm

Tools:

- Socket head wrench, 3 mm
- Rubber hammer



1. Position the sleeve (**1**).



2. Position the pressure piece (**2**).
3. Position the spring (**3**).
4. Position the bolt (**4**).
5. Position the two discs (**5**).
6. Screw in the two screws (**6**).

Information

Secure the screws with Loctite 243 .

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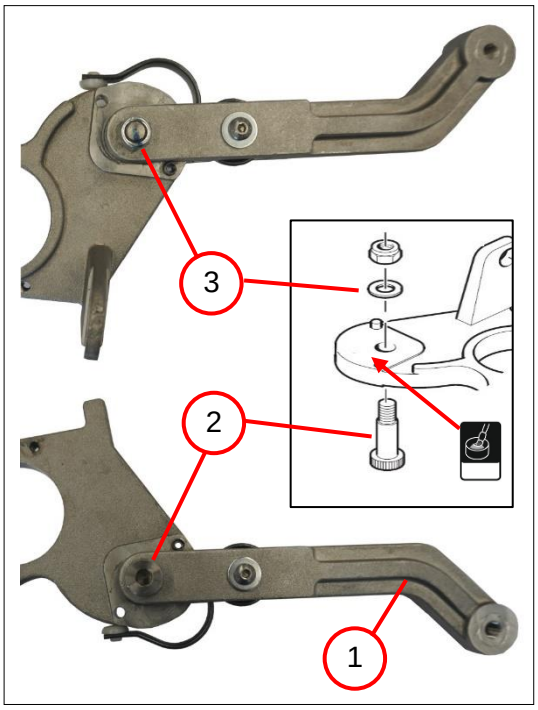
9.5.2 Positioning the tensioning arm

Steps that must be completed:

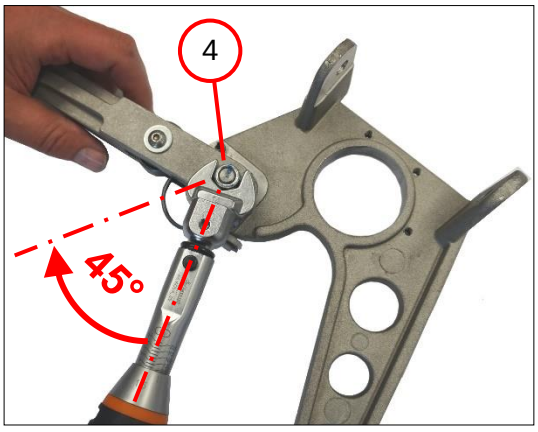
- Assembling the grinding arm

Tools:

- Socket head wrench, 3 mm
- Torque wrench WAF 13



1. Apply grease to the sliding surface.
2. Position the tensioning arm (**1**).
3. Position the screw (**2**).
4. Position the washer (**3**).



5. Screw in the nut (**4**) [1.5 Nm].

Information

Screw in the nut [1.5 Nm], then
loosen again with a 45° rotation.
The tensioning arm must be freely movable.

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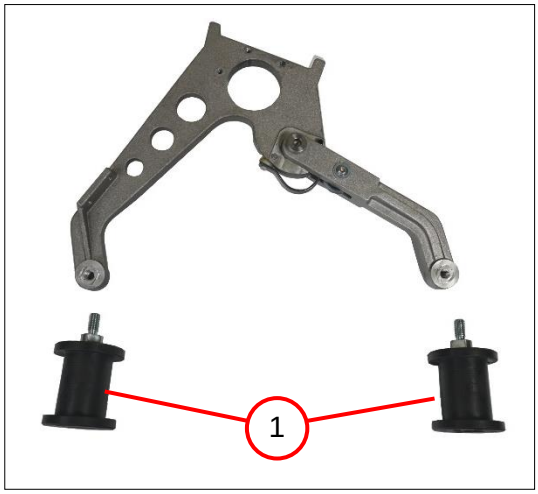
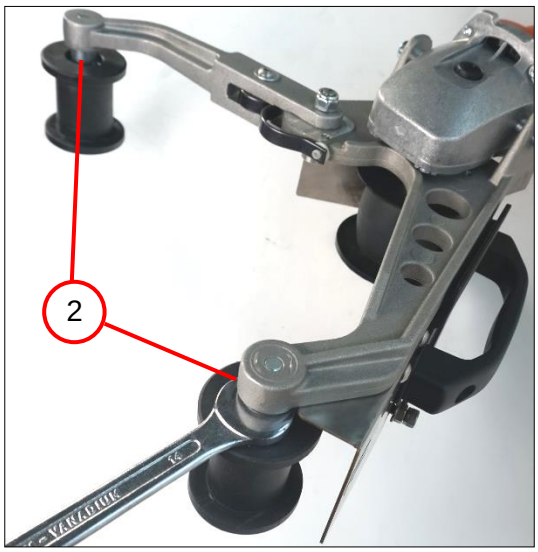
9.5.3 Positioning the rollers

Tools:

- Open-ended spanner, WAF 14



1. Position the two rollers (**1**)



2. Screw in the axle (**2**) [7.0 Nm].

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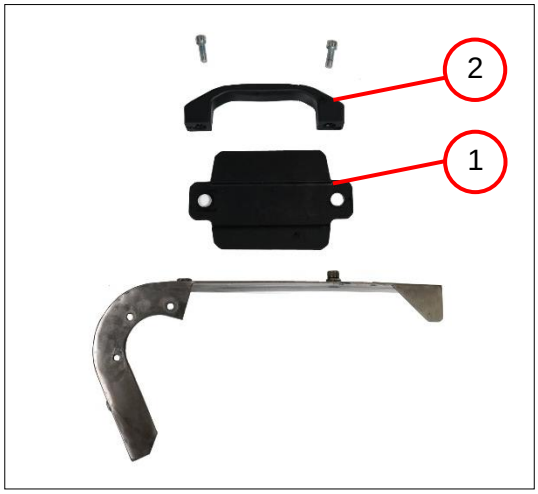
9.5.4 Positioning the handle

Tools:

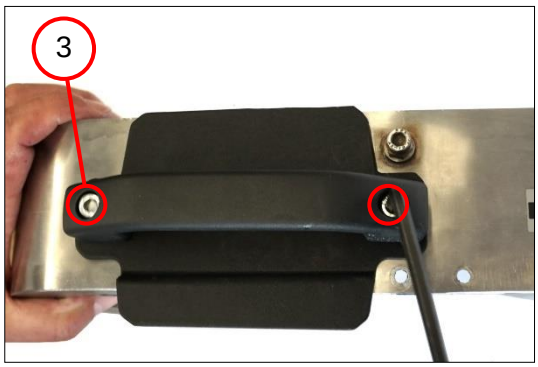
- Socket head wrench, 3 mm



Information

Note the position of the plates.

1. Position the plate (**1**).
2. Position the handle (**2**).



Information

Secure the screws with Loctite 243 .

3. Screw in the two screws (**3**) [2.7 Nm].

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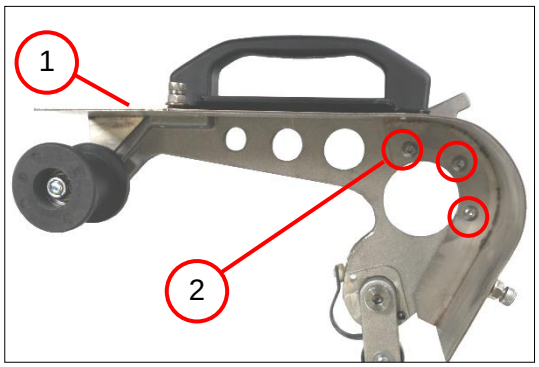
9.5.5 Positioning the safety hood

Tools:

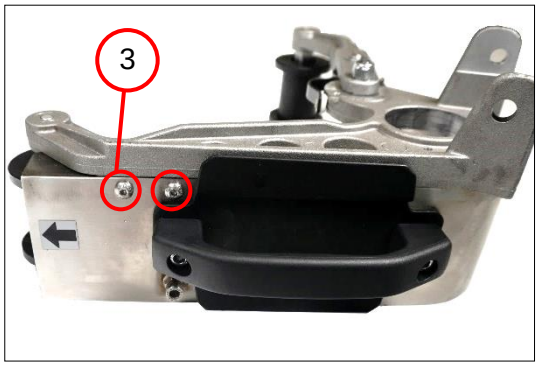
- Socket head wrench, 3 mm



1. Position the safety hood (**1**).
2. Screw in the three screws (**2**) [2.7 Nm].

Information

Secure the screws with Loctite 243 .



3. Screw in the two screws (**3**).

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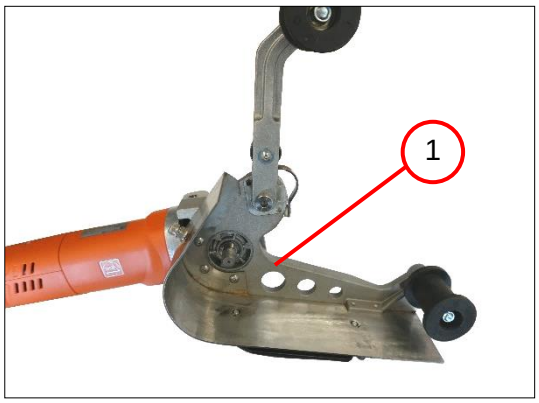
9.6 Positioning the grinding arm

Steps that must be completed:

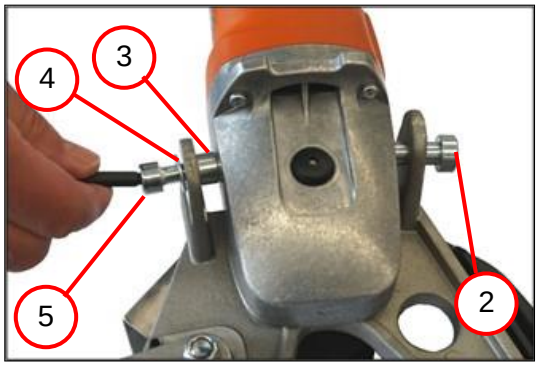
- Assembling the grinding arm

Tools:

- Socket head wrench, 3 mm



1. Position the grinding arm (**1**).



2. Fit the screw (**2**).
3. Position the bushing (**3**).
4. Position the washer (**4**).
5. Fit the screw (**5**).
6. Screw in the screw (**2**) [8.0 Nm].
7. Screw in the screw (**5**) [8.0 Nm].

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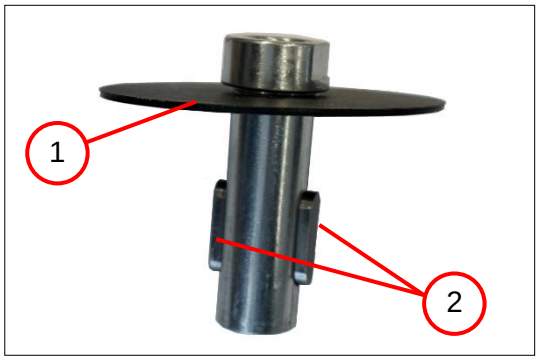
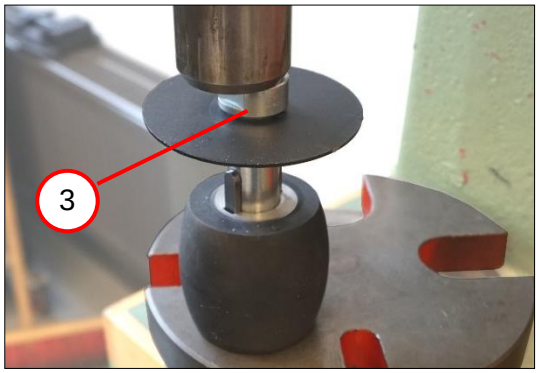
9.6.1 Assembling the drive roller

Tools:

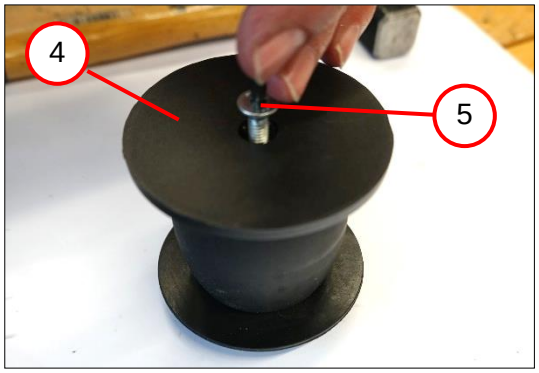
- Socket head wrench, 4 mm
- Arbor press
- Arbor
- Pliers
- Sleeve



1. Position the washer (**1**).
2. Position the two feather keys (**2**).



3. Press in the shaft (**3**).



4. Position the washer (**4**).
5. Screw in the screw (**5**).

Information

Secure the screw with Loctite 243 .

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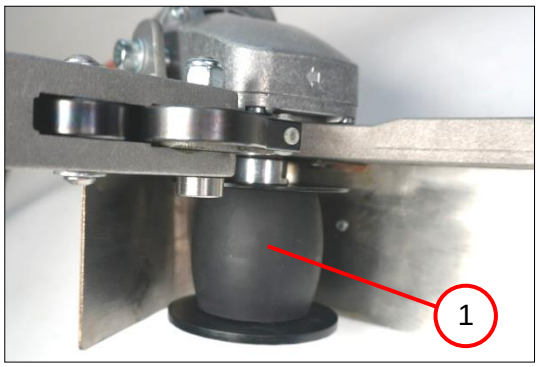
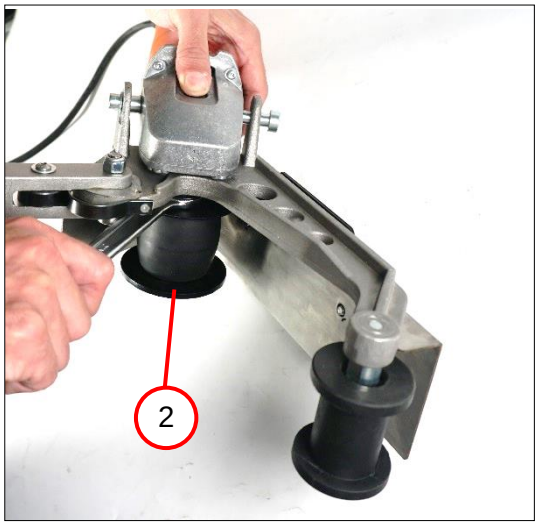
9.6.2 Positioning the drive roller

Tools:

- Open-ended spanner, WAF 22



1. Position the drive roller.



2. Screw in the drive roller.

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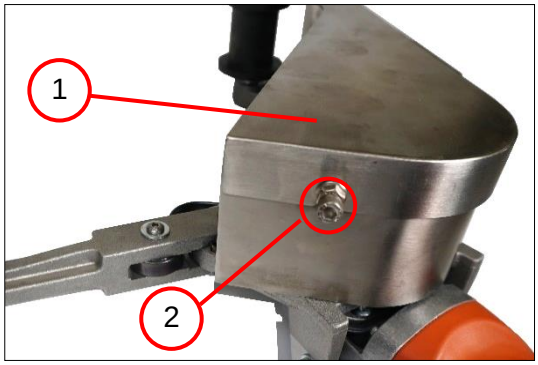
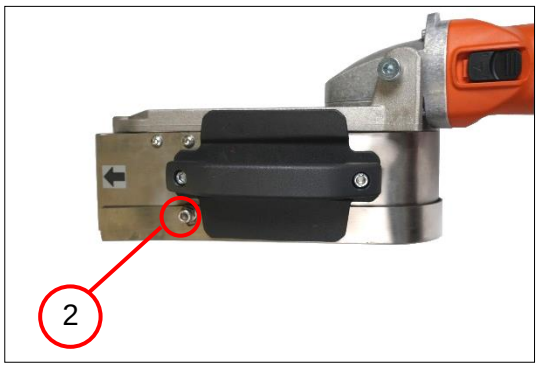
9.6.3 Positioning the cover

Tools:

- Open-ended spanner, WAF 10





1. Position the cover (**1**).
2. Screw in the two nuts (**2**).

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10 Inspection following repairs

A visual and functional check as well as a professional electrical safety test must always be performed after carrying out repair and maintenance work. The regulations and legal requirements applicable in the respective country apply.

Minimum tests recommended for this type of machine:

Always:	Visual inspection
	Speed check
	Insert tool
	Testing
Mains-operated machines:	Electrical safety test
If restart protection is available:	Check restart protection
Brake function available:	Brake function check

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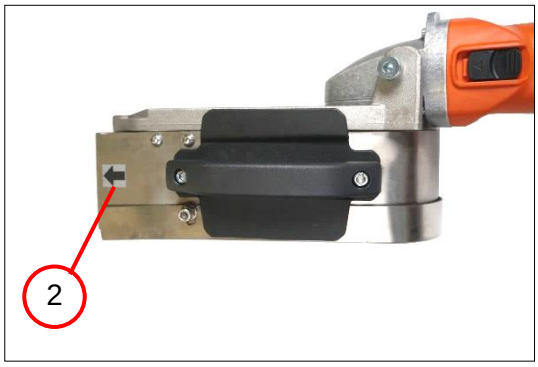
11 Labelling requirement

Type plate (**1**)



Information sign (**2**)

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