Milling

34130533060
Printed in Germany

Repair instructions

Applies to:

KFH17-15R; KFH17-15RT

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1 Models described

These repair instructions describe how to repair the following models:

Model	Material number
KFH17-15R	7 238 18 .. .. .
KFH17-15RT	7 238 19 .. .. .

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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.
	Refers to information or instructions that should be followed. Non-observance can result in damage or malfunctions.
	Read the operating instructions.
	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!

INFORMATION
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 relevant 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

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.

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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

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6 Tools, lubricants and auxiliary substances required

6.1 Standard tools

Dial gauge	
Arbor press	
Plastic hammer	
Cross-head screwdriver	PH2
Socket head wrench	3 mm
Socket head wrench	4 mm
Socket head wrench	5 mm
Circlip pliers	inside; outside
Hook and pin wrench	95/100
Open-end wrench	Size 15
Slotted screwdriver	small
Torx	T15
	T20
	T25
Punch	3 mm diameter
Punch	4 mm diameter
Punch	6 mm diameter
Ball bearing support	19 mm; 26 mm

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6.1 Standard tools

Sleeve	13 mm inner diameter
	20 mm inner diameter
	30 mm outer diameter
	37 mm outer diameter
	41 mm outer diameter
	47 mm outer diameter
	17 mm outer diameter 11 mm inner diameter
	40 mm outer diameter 26 mm inner diameter
	36 mm outer diameter 23 mm inner diameter
	30 mm outer diameter 18.5 mm inner diameter
	40 mm outer diameter 30 mm inner diameter
	55 mm outer diameter 40 mm inner diameter
	65 mm outer diameter 55 mm inner diameter
	89 mm outer diameter 79 mm inner diameter
Pipe	75 mm outer diameter 72 mm inner diameter L=80 mm

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6.2 Special tools

Drawing-off socket cap		64104150008
Chuck cone	19 mm diameter	64107019007
	26 mm diameter	64107026000
Drawing-off plate		64102069007
Pipe		64101002004
Assembly aid		64122121010
Pressure piece		64122003000
Extractor tool		64104101002
Mounting device		64122134000

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6.3 Lubricants and auxiliary substances required

The manufacturer's specifications for the lubricants used can be found in the FEIN **lubricants catalogue.**

Grease	SM 0021	20 g	Gearbox
Grease	SM 0024	n/a	Mounting springs
Grease	SM 0022	n/a	Mounting of indexable inserts
Thread locking compound	Loctite 242	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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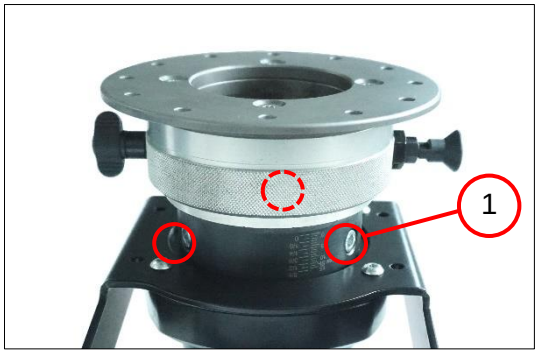
8 Disassembly

8.1 Removing the milling head

8.1.1 Removing the guide plate unit

Tools:

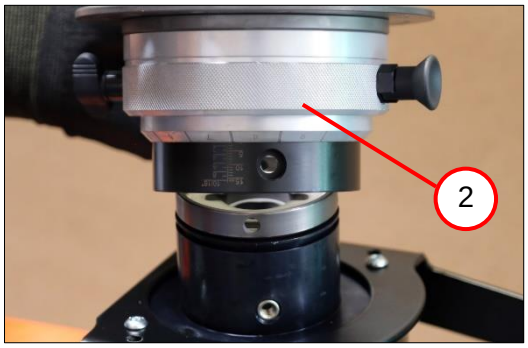
- Socket head wrench, 5 mm



INFORMATION

Warm up the screws using a hot air gun because they have been glued in with a thread locking compound.

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



2. Remove the guide plate unit (**2**).

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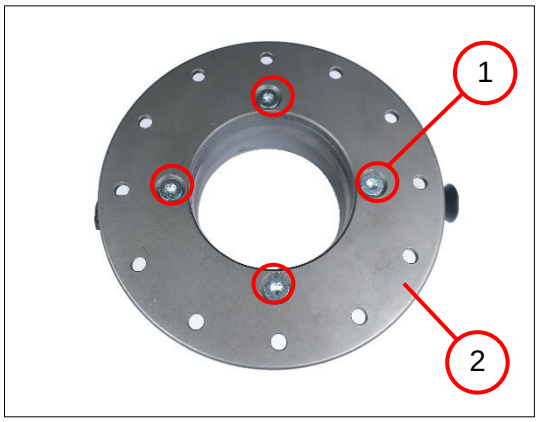
8.1.2 Removing the guide plate unit

Tools:

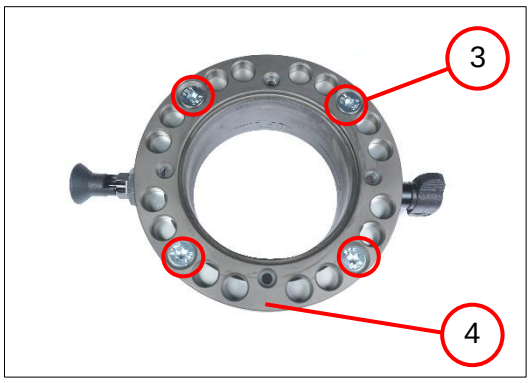
- Torx T20
- Torx T25
- Open-end wrench size 15



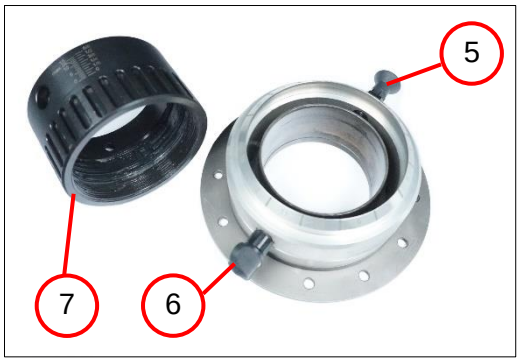
INFORMATION

Warm up the screws using a hot air gun because they have been glued in with a thread locking compound.

1. Unscrew the four screws (**1**).
2. Remove the guide plate (**2**).



3. Unscrew the four screws (**3**).
4. Unscrew the holder (**4**).



5. Unscrew the screw (**5**).
6. Unscrew the locking knob (**6**).
7. Remove the sleeve (**7**).

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8.1.3 Removing the handle (milling head)

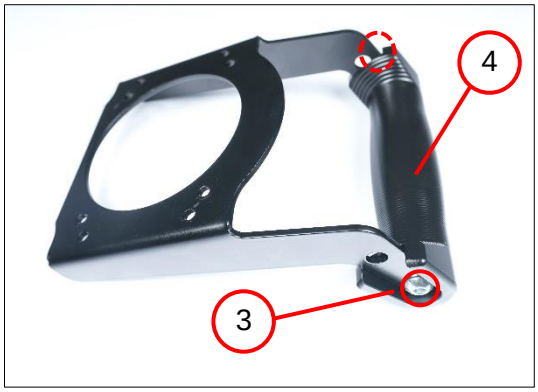
Steps that must be completed:

- Removing the guide plate unit

Tools:

- Socket head wrench, 3 mm
- Socket head wrench, 5 mm

1. Unscrew the four screws (**1**).
2. Remove the holder (**2**).



1. Unscrew the two screws (**3**).
2. Remove the handle (**4**).

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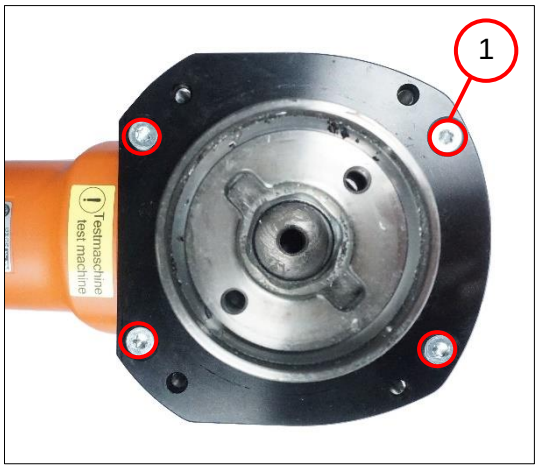
8.1.4 Removing the gearbox unit

Steps that must be completed:

- Removing the guide plate unit
- Removing the handle

Tools:

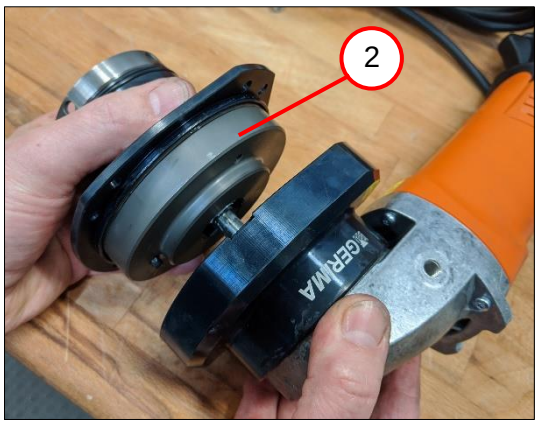
- Torx T25
- Socket head wrench, 4 mm
- Plastic hammer



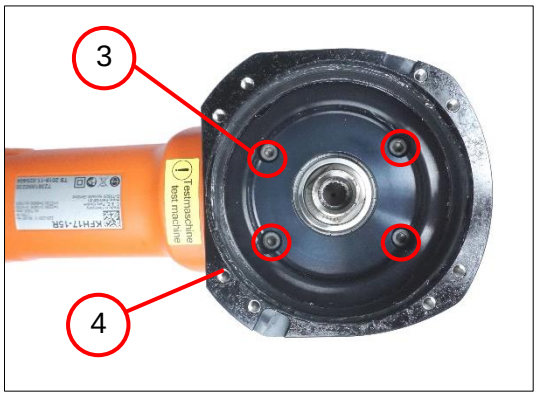
INFORMATION

Warm up the screws using a hot air gun because they have been glued in with a thread locking compound.

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



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



3. Unscrew the four screws (**3**).
4. Remove the housing (**4**).

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8.2 Removing the gearbox unit

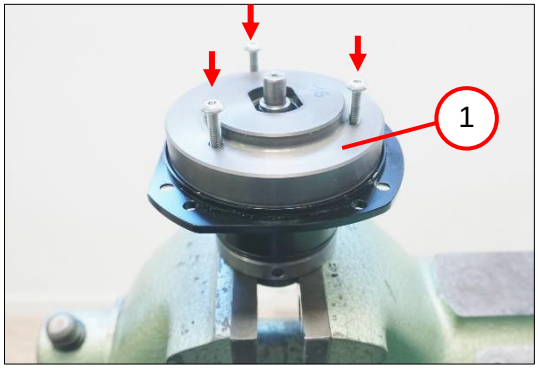
8.2.1 Remove flywheel

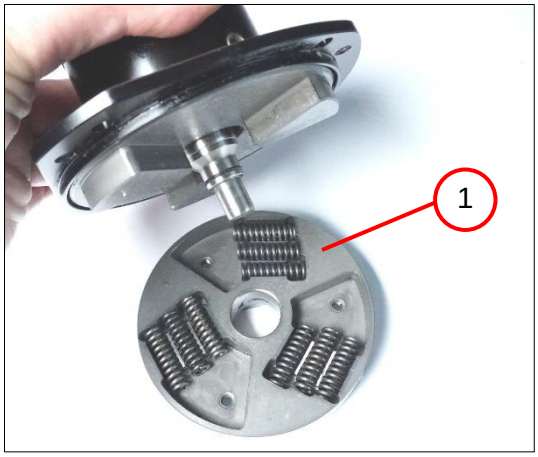
Steps that must be completed:

- Removing the guide plate unit
- Removing the handle
- Removing the gearbox unit

Tools:

- Socket head wrench, 3 mm
- Hook and pin wrench 95/100
- Mounting device 64122134000





INFORMATION

Remove the spring magazine (**1**) using screws (M5x20).

Watch out for the springs, they can fall out.

1. Fix the bearing housing with the mounting device.
2. Remove the spring magazine (**1**).

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8.2.1 Remove flywheel

3. Fix the bearing housing with the mounting device.
4. Remove the flywheel (**1**).

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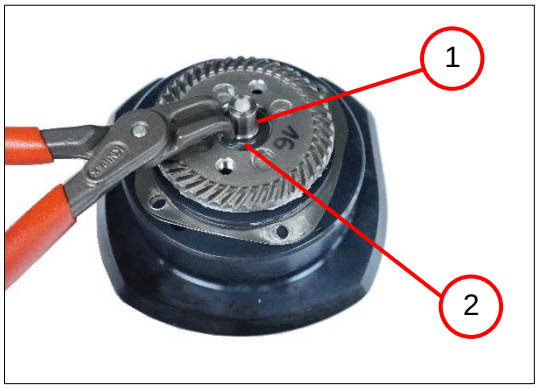
8.2.2 Removing the crown wheel

Steps that must be completed:

- Removing the guide plate unit
- Removing the handle
- Removing the gearbox unit

Tools:

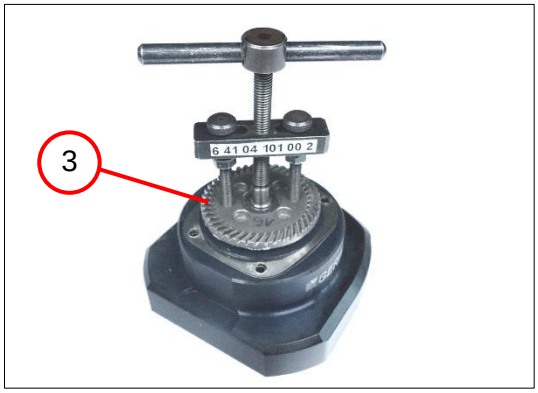
- Torx T15
- Extractor tool 64104101002
- Circlip pliers



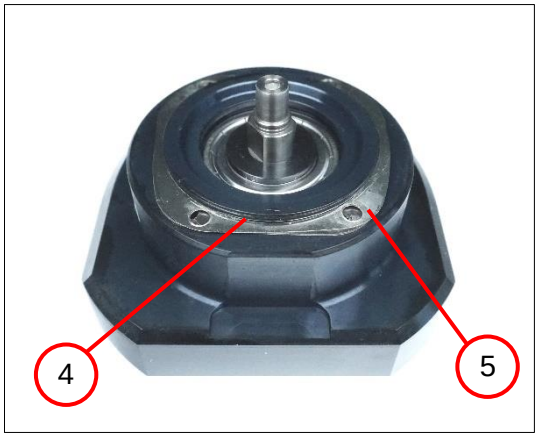
INFORMATION

Use a new circlip for assembly each time.

1. Remove the circlip (**1**).
2. Remove the washer (**2**).



3. Remove the crown wheel (**3**).



INFORMATION

The sealing ring (**4**) is destroyed during removal and must be replaced.

4. Remove the sealing ring (**4**).
5. Remove the shims (**5**).

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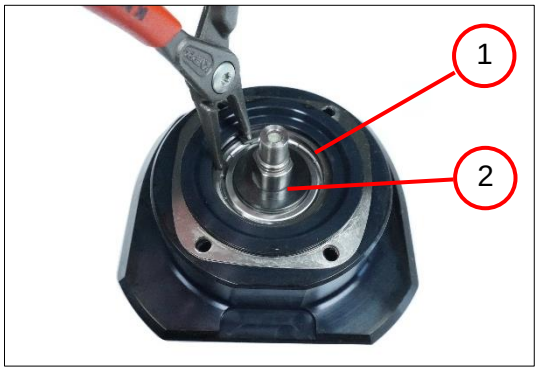
8.2.3 Removing the drive shaft (with needle bearing)

Steps that must be completed:

- Removing the guide plate unit
- Removing the handle
- Removing the gearbox unit
- Removing the housing

Tools:

- Arbor press
- Sleeve, 65 mm outer diameter, 55 mm inner diameter
- Sleeve, 20 mm inner diameter
- Punch, 3 mm diameter
- Circlip pliers



INFORMATION

Use a new circlip for assembly each time.

1. Remove the circlip (**1**).
2. Remove the washer (**2**).

3. Press out the drive shaft (**3**).

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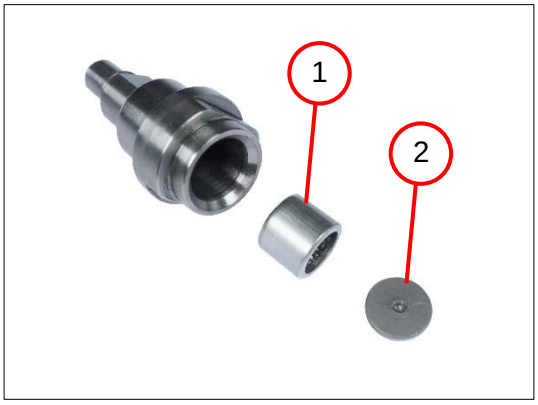
8.2.3 Removing the drive shaft (with needle bearing)



INFORMATION

Press out the need bearing carefully. Remove the needle bearing only if necessary.

The needle bearing is destroyed during removal and must be replaced.

4. Press out the needle bearing (**1**).
5. Remove the washer (**2**).

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8.2.4 Removing the grooved ball bearing

Steps that must be completed:

- Removing the guide plate unit
- Removing the handle
- Removing the gearbox unit
- Removing the drive shaft
- Removing the crown wheel

Tools:

- Arbor press
- Sleeve, 37 mm outer diameter

INFORMATION

The grooved ball bearing (**1**) is destroyed during removal and must be replaced.

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

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8.2.5 Removing the drive shaft

Steps that must be completed:

- Removing the guide plate unit
- Removing the handle
- Removing the gearbox unit
- Removing the drive shaft
- Removing the crown wheel

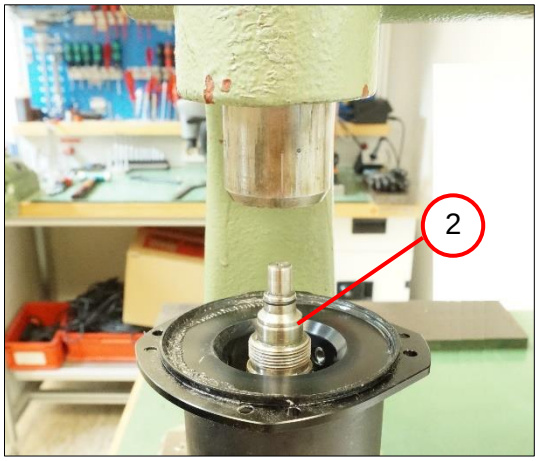
Tools:

- Arbor press
- Sleeve, 89 mm outer diameter, 79 mm inner diameter
- Slotted screwdriver

INFORMATION

The sealing ring (**1**) is destroyed during removal and must be replaced.

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



2. Press out the drive shaft (**2**).

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8.2.5 Removing the drive shaft

INFORMATION

The sealing ring (**1**) is destroyed during removal and must be replaced.

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

INFORMATION

The sealing ring (**2**) is destroyed during removal and must be replaced.

4. Remove the sealing ring (**2**).

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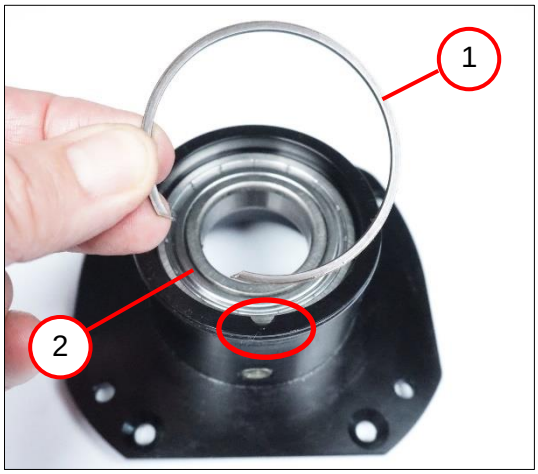
8.2.6 Removing the grooved ball bearing

Steps that must be completed:

- Removing the guide plate unit
- Removing the handle
- Removing the gearbox unit
- Removing the drive shaft
- Removing the crown wheel

Tools:

- Arbor press
- Sleeve, 89 mm outer diameter, 79 mm inner diameter
- Sleeve, 47 mm outer diameter
- Slotted screwdriver



INFORMATION

Note the recess when removing the retaining ring.

1. Remove the circlip (**1**).

INFORMATION

The grooved ball bearing (**2**) is destroyed during removal and must be replaced.

2. Press out the grooved ball bearing.

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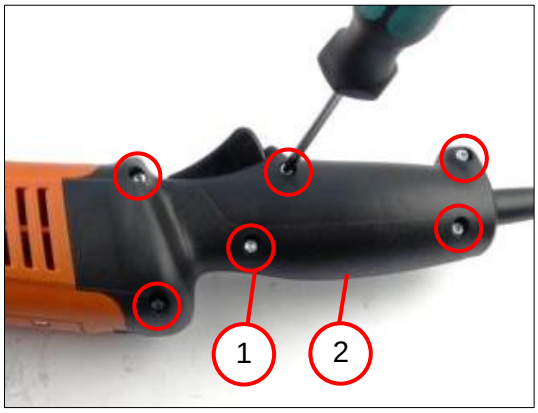
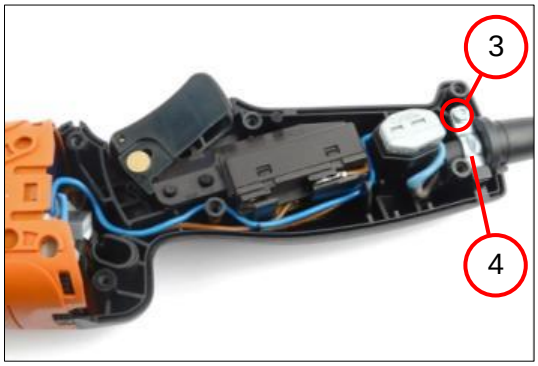
8.3 Removing the handle

Tools:

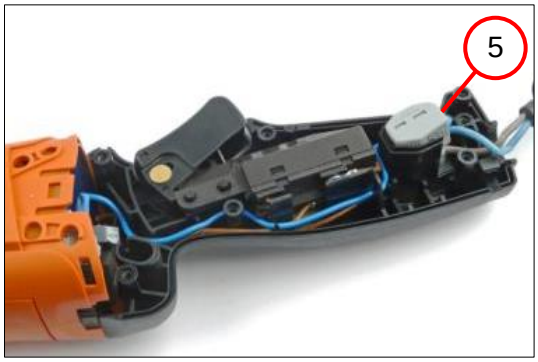
- Torx T15
- PH2 cross-head screwdriver



1. Unscrew the six screws (**1**).
2. Remove the handle half shell (**2**).



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



5. Remove the terminals (**5**).

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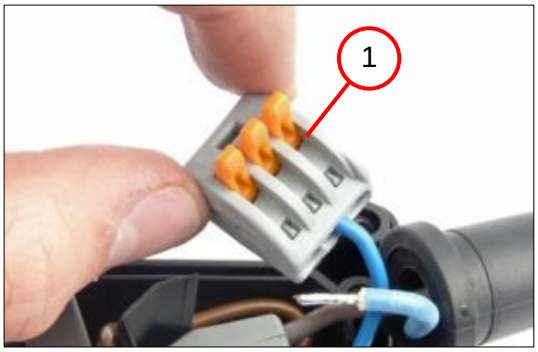
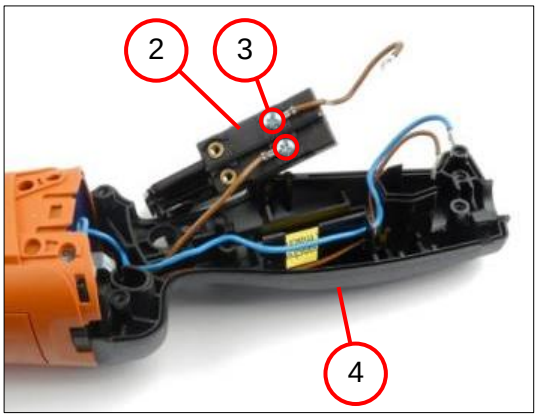
8.3 Removing the handle



6. Open the terminals (**1**) and remove the cables.



7. Remove the switch (**2**).
8. Unscrew the two screws (**3**) and remove the electronics.
9. Remove the handle half shell (**4**).

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8.4 Removing the housing

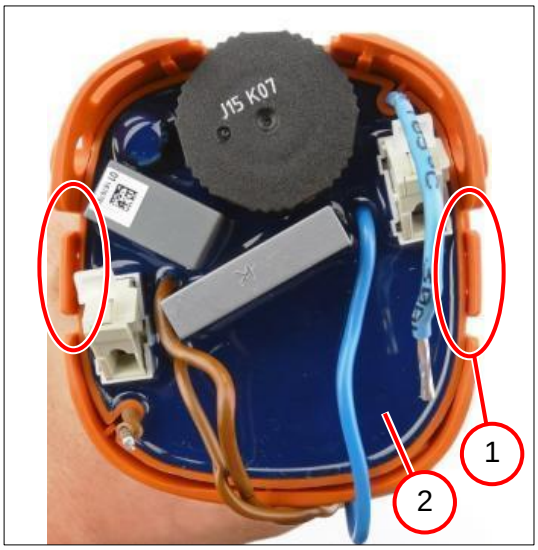
8.4.1 Removing the electronics

Steps that must be completed:

- Remove handle

Tools:

- Torx T15
- PH2 cross-head screwdriver



1. Simultaneously press the lugs (**1**).
2. Remove the electronics (**2**).

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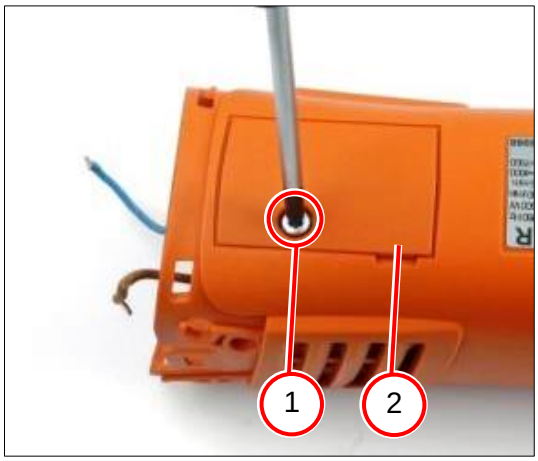
8.4.2 Removing the carbon brushes

Steps that must be completed:

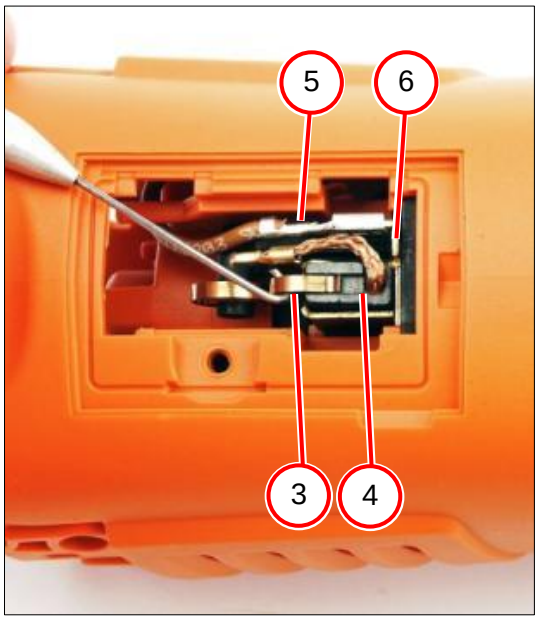
- Remove handle

Tools:

- Torx T15
- Long-nosed pliers
- Assembly aid



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



5. Lift up the spring (**3**).
6. Remove the carbon brush (**4**).
7. Remove the cable (**5**).
8. Remove the carbon brush holder (**6**).
9. Repeat steps 1 to 6 on the opposite side of the machine.

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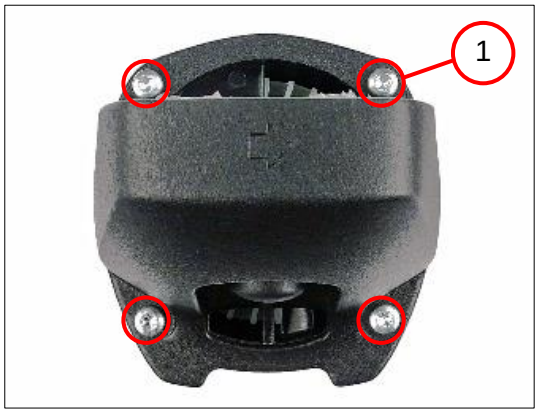
8.4.3 Removing the gearbox housing

Steps that must be completed:

- Removing the milling head
- Removing the handle (milling head)

Tools:

- Torx T15
- Plastic hammer



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

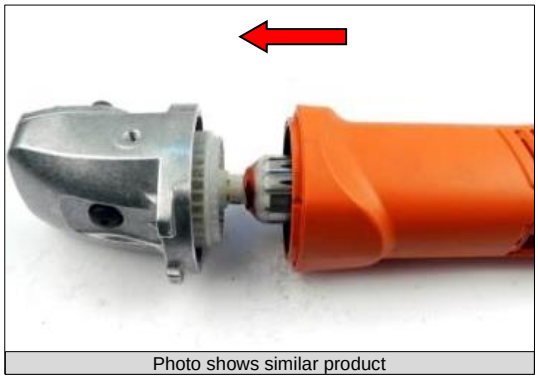


Photo shows similar product

2. Remove the gearbox housing.

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8.4.3 Removing the gearbox housing

Steps that must be completed:

- Removing the milling head
- Removing the handle
- Removing the switch
- Removing the carbon brushes
- Removing the gearbox housing

Tools:

- Slotted screwdriver

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

Photo shows similar product

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

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8.4.3 Removing the gearbox housing

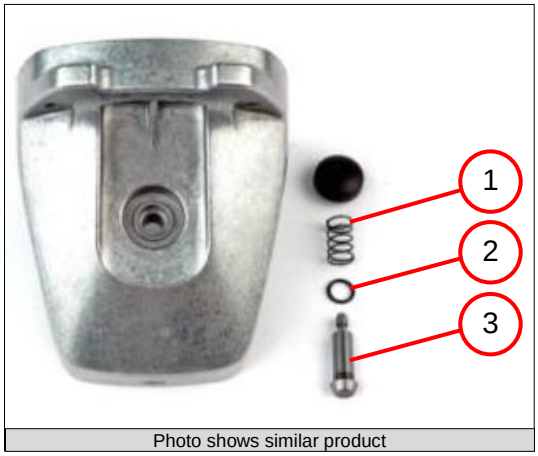

Photo shows similar product

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

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8.5 Removing the motor

8.5.1 Removing the stator

Steps that must be completed:

- Removing the milling head
- Removing the handle
- 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 stator.

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8.5.1 Removing the stator

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8.5.2 Removing the armature

Steps that must be completed:

- Removing the milling head
- Removing the handle
- Removing the switch
- Removing the carbon brushes
- Removing the gearbox housing

Tools:

- Plastic hammer

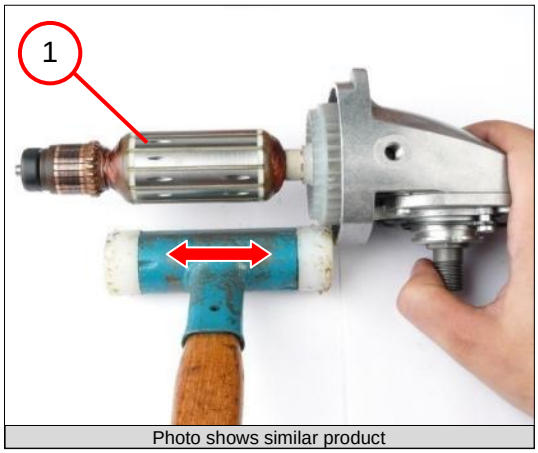

Photo shows similar product

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

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8.5.3 Disassembling the armature

Steps that must be completed:

- Removing the milling head
- Removing the handle
- Removing the switch
- Removing the carbon brushes
- Removing the gearbox housing
- Removing the armature

Tools:

- Punch, 6 mm diameter
- Arbor press
- Drawing-off plate 64102069007
- Pipe 64101002004
- Drawing-off socket cap 64104150008
- Chuck cone
  26 mm 64107026000
  19 mm 64107019007

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

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

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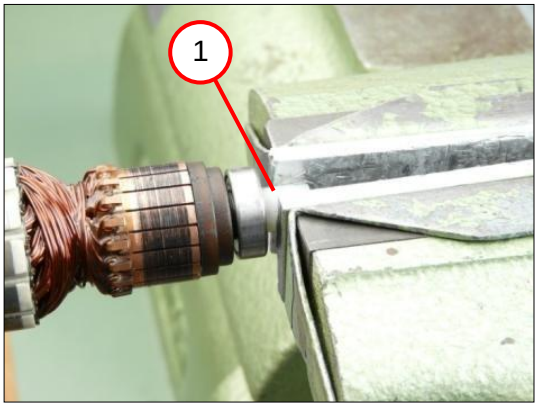
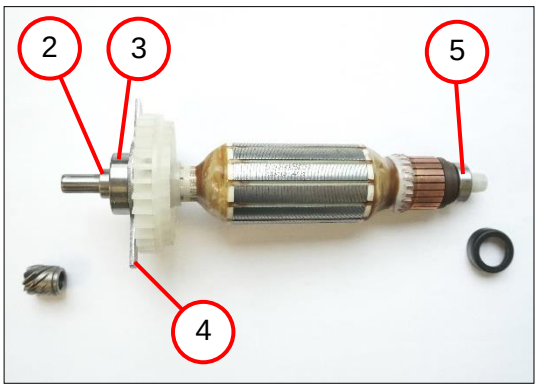
8.5.3 Disassembling the armature



3. Remove the magnet (**1**).

INFORMATION

The magnet is destroyed during removal and must be replaced.



4. Position the spacer sleeve (**2**).
5. Remove the grooved ball bearing (**3**).
6. Remove the plate (**4**).
7. Remove the grooved ball bearing (**5**).

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8.5.4 Removing the gearbox housing

Steps that must be completed:

- Removing the milling head
- Removing the handle
- Removing the switch
- Removing the carbon brushes
- Removing the gearbox housing

Tools:

- Slotted screwdriver

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

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

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8.5.4 Removing the gearbox housing

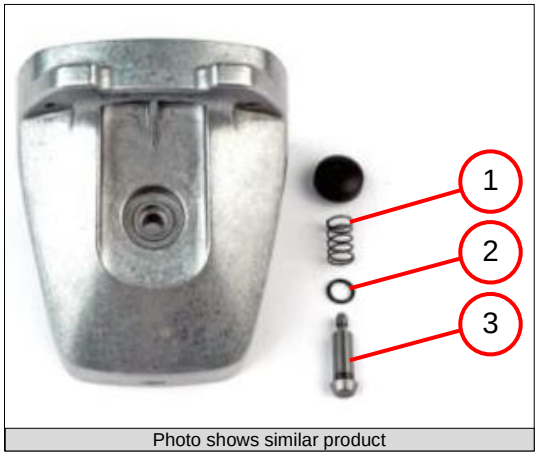

Photo shows similar product

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

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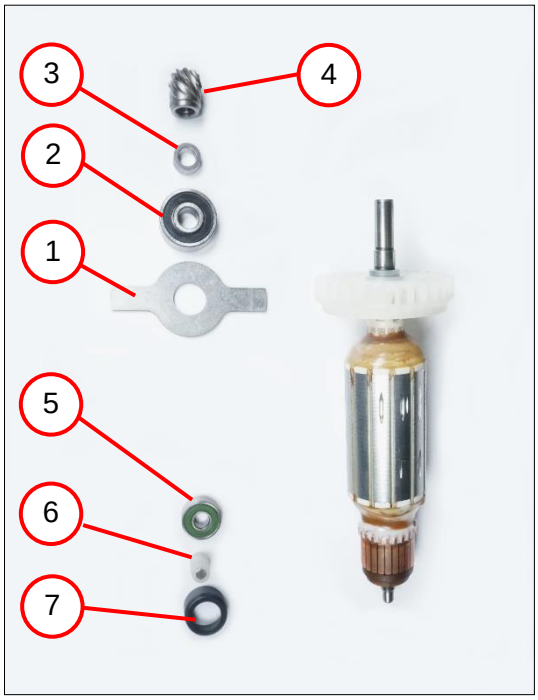
9 Assembly

9.1 Assembling the motor

9.1.1 Assembling the armature

Tools:

- Arbor press
- Ball bearing support 19 mm; 26 mm



1. Position the plate (**1**).
2. Press on the grooved ball bearing (**2**).
3. Position the spacer sleeve (**3**).
4. Press on the bevel pinion (**4**).
5. Press on the grooved ball bearing (**5**).

INFORMATION

Use a new magnet for assembly each time.

NOTE!

Damage to the magnet.

The magnet can be damaged by excessive force.

Carefully press on the magnet.

6. Press on the magnet (**6**).
7. Position the bearing bush (**7**).

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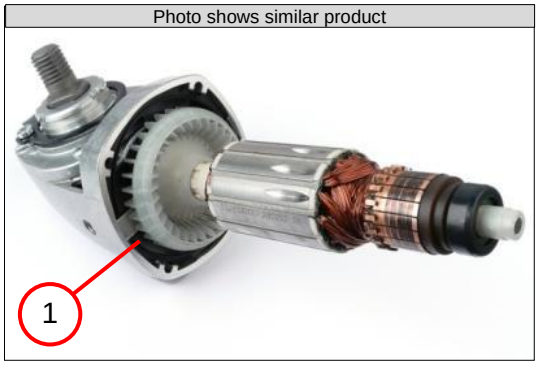
9.1.2 Positioning the armature

Steps that must be completed:

- Assembling the gearbox housing
- Assembling the armature

Photo shows similar product



INFORMATION

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

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

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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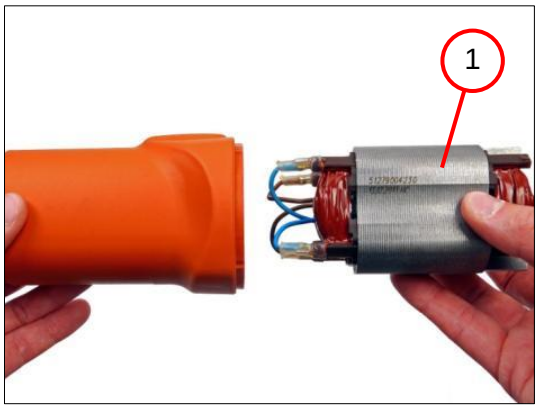
9.1.3 Fitting the stator

Tools:

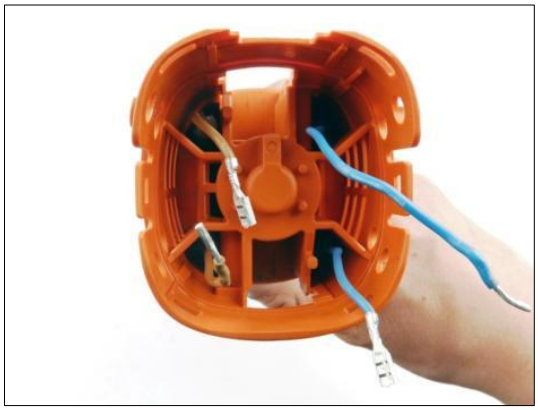
- Arbor press
- Pressure piece 64122003000
- Sleeve, 40 mm outer diameter, 26 mm inner diameter



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

INFORMATION

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



INFORMATION

Ensure that the cables are in the correct position.

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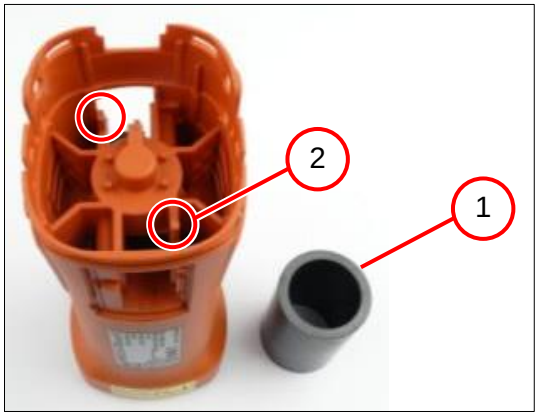
9.1.3 Fitting the stator



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

INFORMATION
Ensure that the sleeve lies between the studs (**2**).

3. Insert the pressure piece (**3**).

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9.1.3 Fitting the stator

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

5. Position the air guide ring (**2**).

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9.2 Fitting the housing

9.2.1 Assembling the gearbox housing

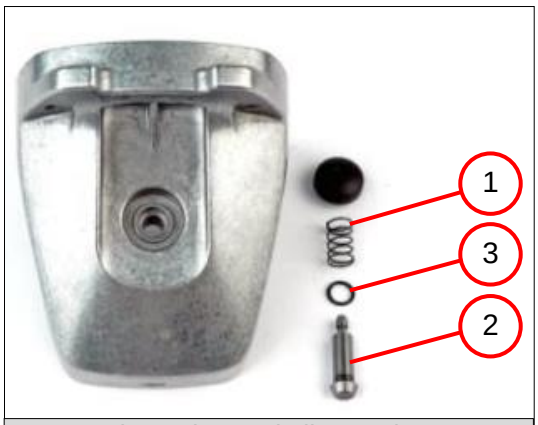

Photo shows similar product

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

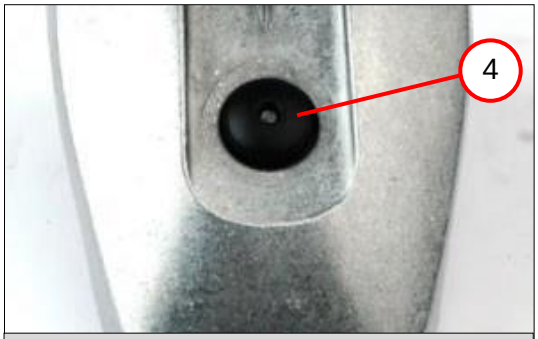

Photo shows similar product

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

3. Position the air guide ring (**5**).

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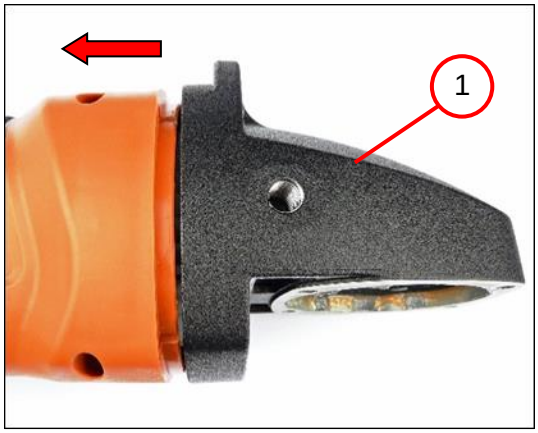
9.2.2 Positioning the gearbox housing

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



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

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

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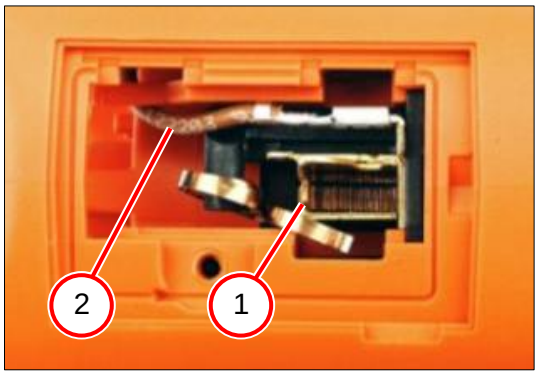
9.2.3 Positioning the carbon brushes

Steps that must be completed:

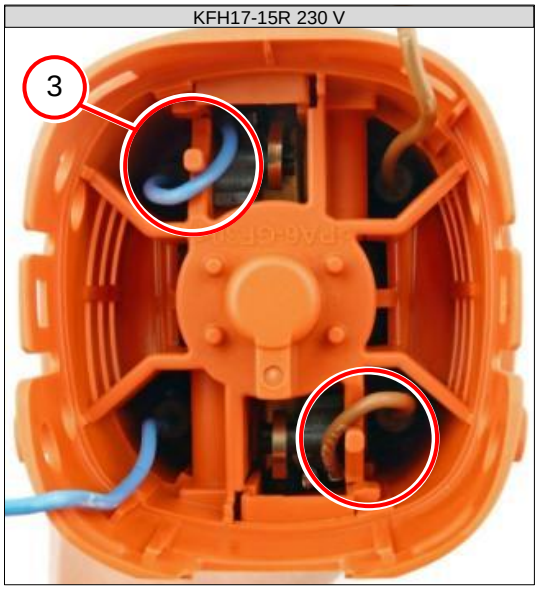
- Assembling the gearbox housing
- Assembling the armature
- Positioning the armature
- Fitting the stator
- Positioning the gearbox housing

Tools:

- Assembly aid
- Torx T15



1. Position the carbon brush holder (**1**).
2. Connect the cable (**2**).
3. Repeat steps 1 and 2 on the opposite side of the machine.



4. Position the cables (**3**).

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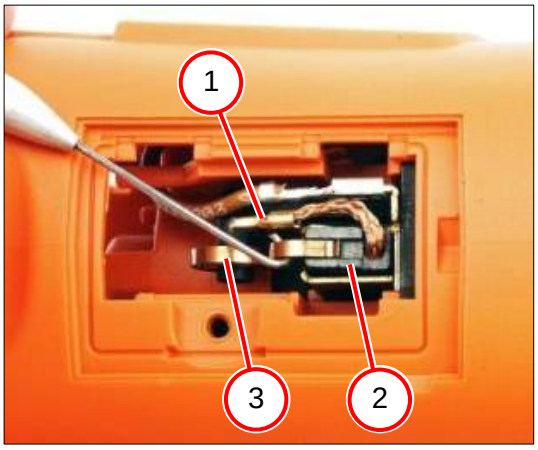
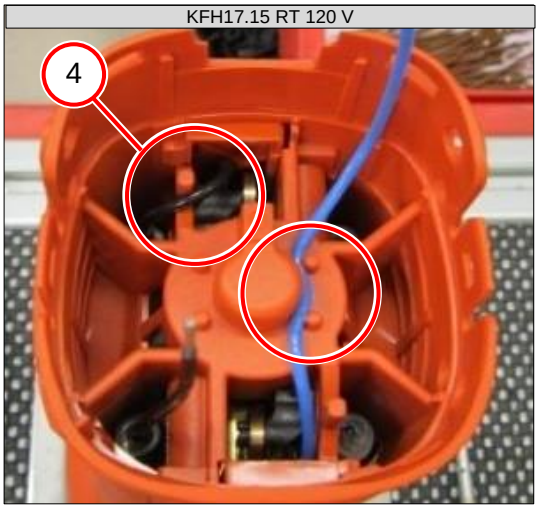
9.2.3 Positioning the carbon brushes



5. Connect the cable (**1**).
6. Position the carbon brush (**2**).
7. Position the spring (**3**).

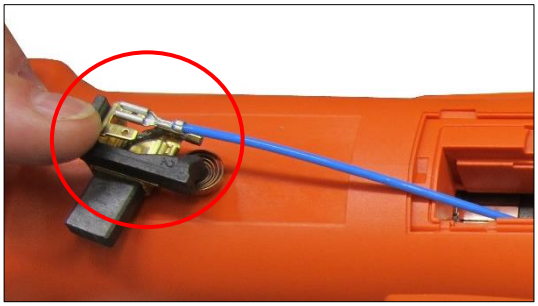


Applies to KFH 17-15 RT 120 V:

8. Position the cables (**4**).

Applies to KFH 17-15 RT 120 V:

9. Connect the choke (**5**).



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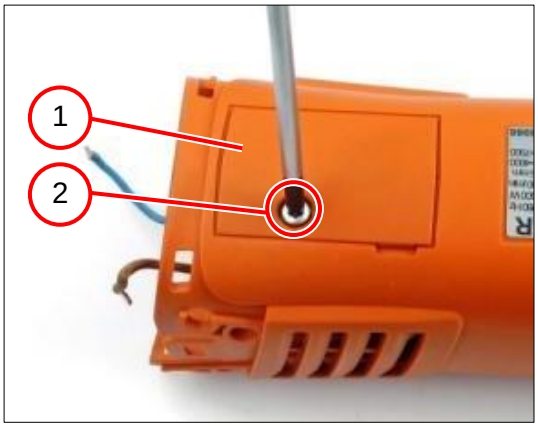
9.2.3 Positioning the carbon brushes



10. Position the cover (**1**).
11. Screw in the screw (**2**) [1.5 Nm].
12. Repeat steps 6 to 10 on the opposite side of the machine.

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9.2.4 Fitting the switch

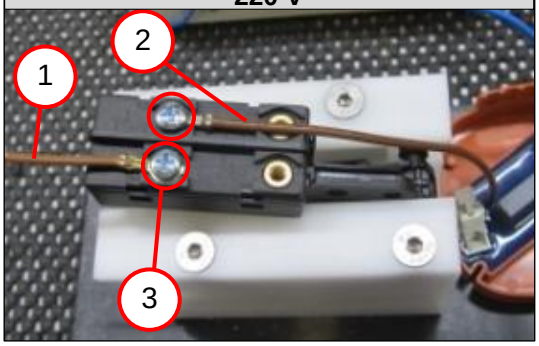
Steps that must be completed:

- Assembling the gearbox housing
- Assembling the armature
- Positioning the armature
- Fitting the stator
- Positioning the gearbox housing

Tools:

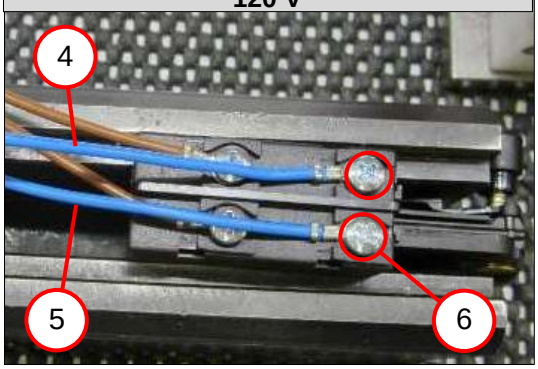
- PH2 cross-head screwdriver

220 V



1. Position the cable (**1**).
2. Position the cable (**2**).
3. Screw in the screw (**3**) [0.8 Nm ±0.2 Nm].

120 V



4. Position the cable (**4**).
5. Position the cable (**5**).
6. Screw in the screw (**6**) [0.8 Nm ±0.2 Nm].

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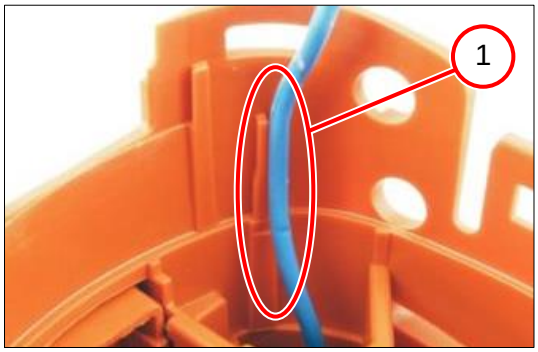
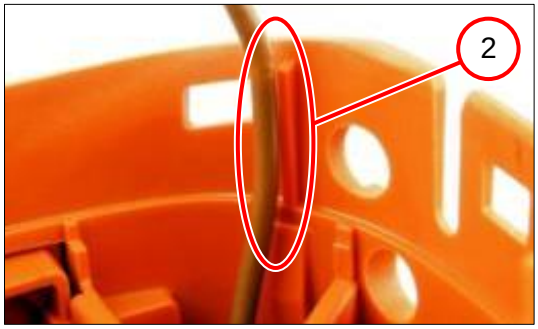
9.2.5 Positioning the electronics

Steps that must be completed:

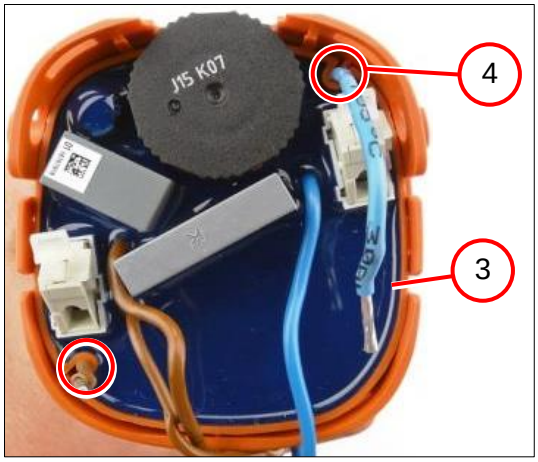
- Assembling the gearbox housing
- Assembling the armature
- Positioning the armature
- Fitting the stator
- Positioning the gearbox housing



1. Position the cable (**1**).



2. Position the cable (**2**).



3. Position the electronics (**3**).

INFORMATION

Ensure that the cables (**4**) are in the correct position.

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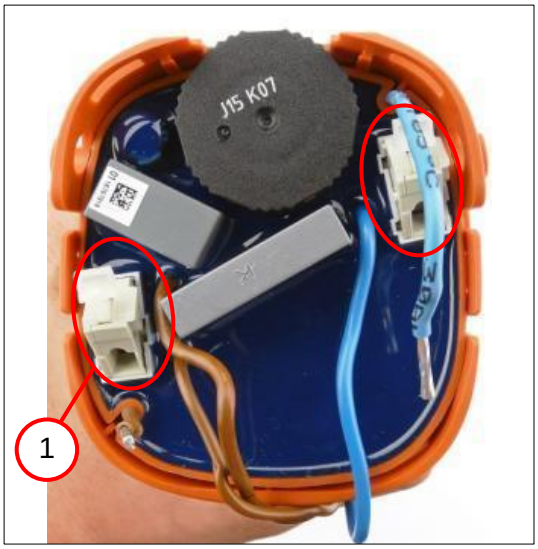
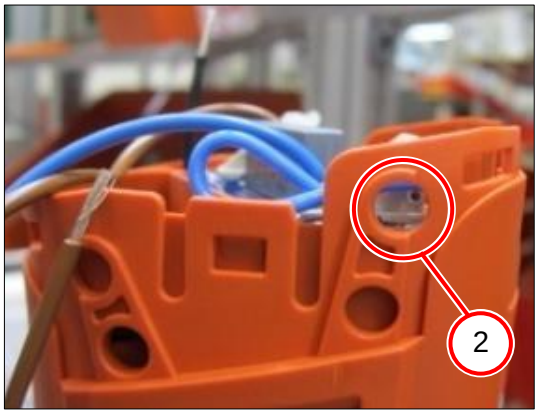
9.2.5 Positioning the electronics



4. Open the two terminals (**1**) and connect the cables.

INFORMATION

Route the cables so that they do not cover the opening (**2**).



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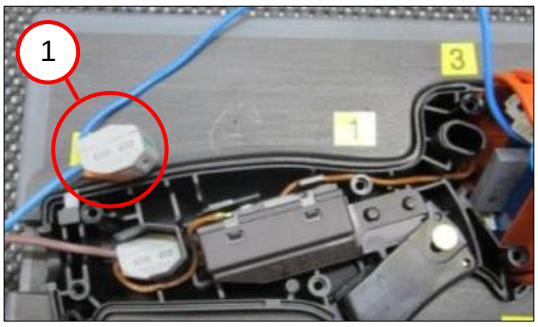
9.3 Assembling the handle

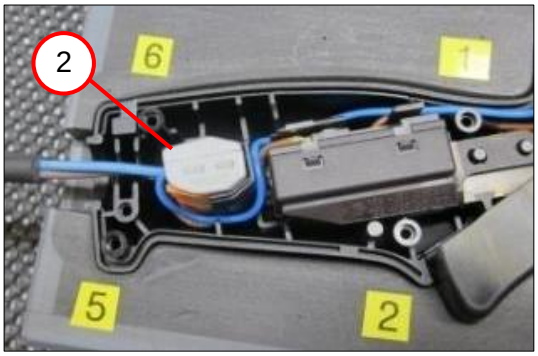
9.3.1 Assembling the handle (applies to KFH17-15R)

Tools:

- Torx T15
- Assembly aid

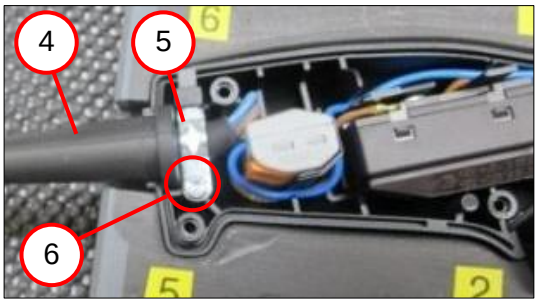


1. Connect the cables (**1**).



2. Position the terminal (**2**).

3. Position the cables (**3**).



4. Position the cable with the plug (**4**).
5. Position the cable clamp (**5**).
6. Screw in the screw (**6**) [1.5 Nm].

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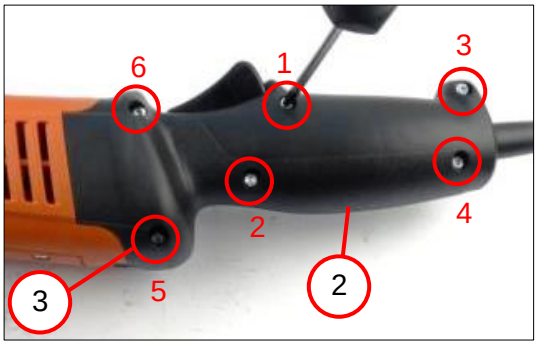
9.3.1 Assembling the handle (applies to KFH17-15R)



7. Position the handle half shell (**2**).
8. Screw in the six screws (**3**) [1.5 Nm].

INFORMATION

Observe the screwdriving sequence.

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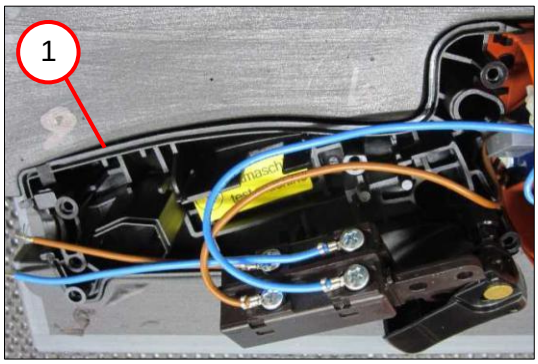
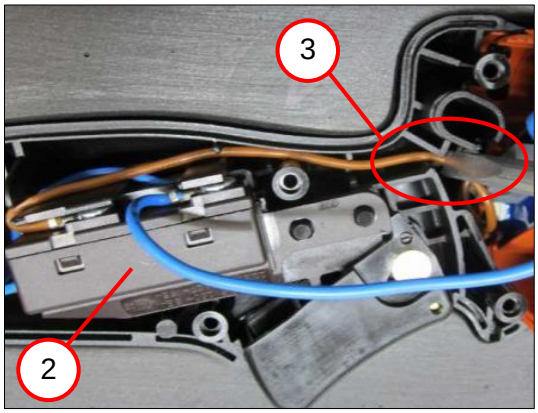
9.3.2 Assembling the handle (applies to KFH17-15RT 120V)

Tools:

- Torx T15
- Assembly aid



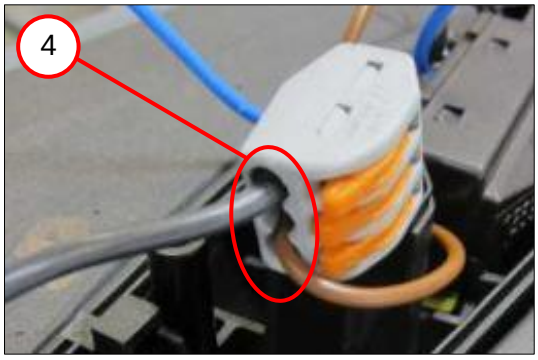
1. Position the handle half shell (**1**).



2. Position the switch (**2**).
3. Position the cables (**3**).

INFORMATION

Press the cables as deep as possible into the recess.



4. Connect the cables (**4**).

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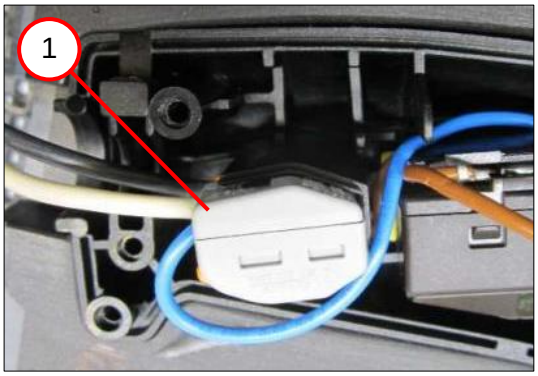
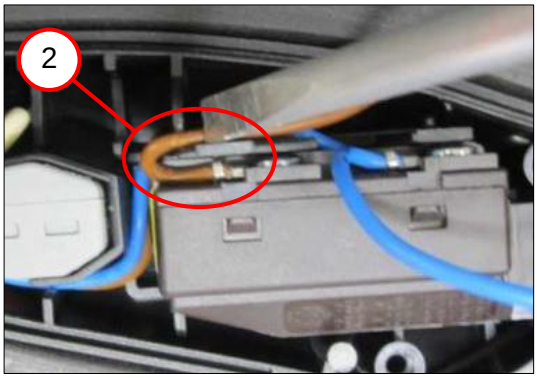
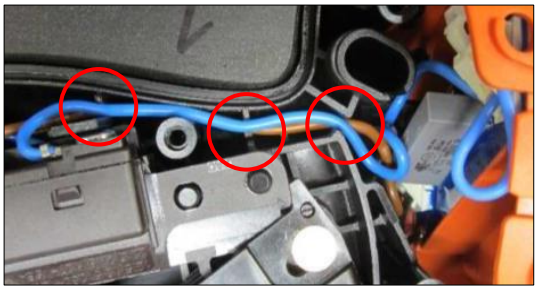
9.3.2 Assembling the handle (applies to KFH17-15RT 120V)

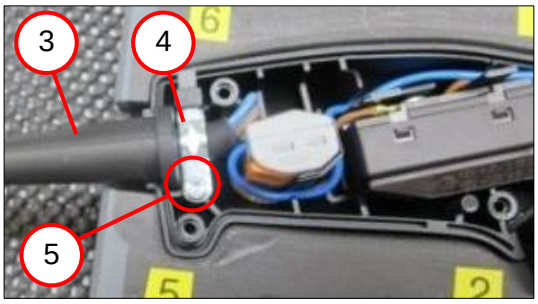


5. Position the terminal (**1**).





6. Position the cables (**2**).



7. Position the cable with the plug (**3**).
8. Position the cable clamping piece (**4**).
9. Screw in the screw (**5**) [1.5 Nm].

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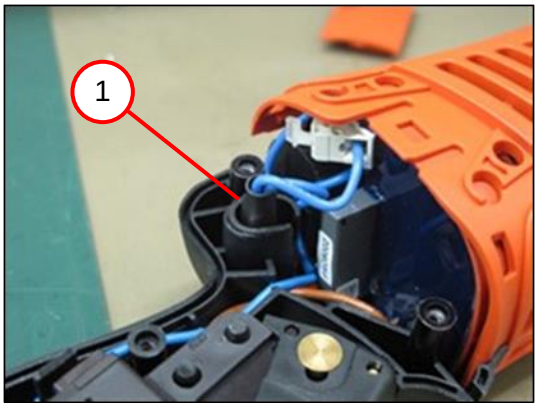
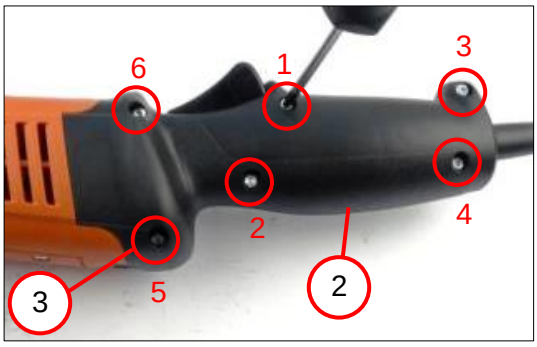
9.3.2 Assembling the handle (applies to KFH17-15RT 120V)



INFORMATION

Note the position of the choke.

10. Position the choke (**1**).



11. Position the handle half shell (**2**).
12. Screw in the six screws (**3**) [1.5 Nm].

INFORMATION

Observe the screwdriving sequence.

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9.4 Assembling the milling head

9.4.1 Assembling the grooved ball bearing

Tools:

- Arbor press
- Sleeve, 55 mm outer diameter, 40 mm inner diameter

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

2. Position the circlip (**2**).

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9.4.2 Assembling the drive shaft

Steps that must be completed:

- Assembling the grooved ball bearing

Tools:

- Arbor press
- Sleeve, 40 mm outer diameter, 30 mm inner diameter

INFORMATION

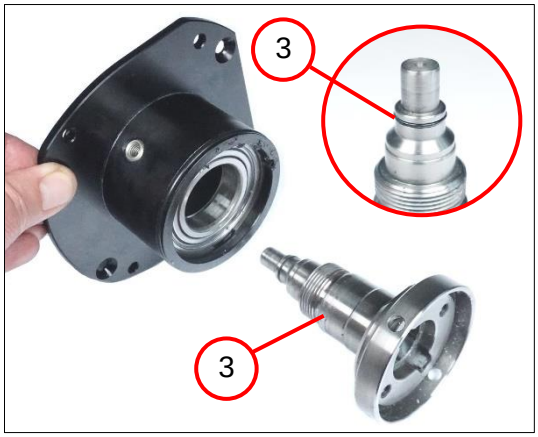
Apply grease to the sealing ring.

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

INFORMATION

Apply grease to the sealing ring.

2. Position the sealing ring (**2**).



3. Position the sealing ring (**3**).
4. Position the drive shaft (**4**).

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9.4.2 Assembling the drive shaft

5. Press in the drive shaft (**1**).

INFORMATION

Apply Loctite 242 to the thread.

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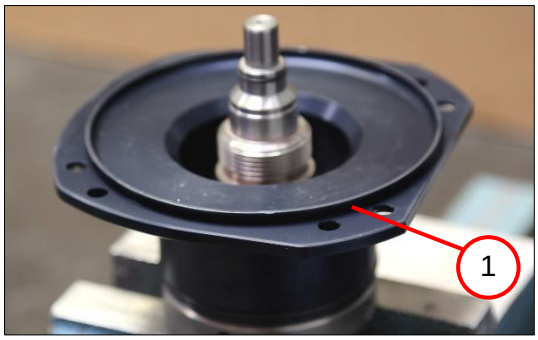
9.4.3 Assembling the flywheel

Steps that must be completed:

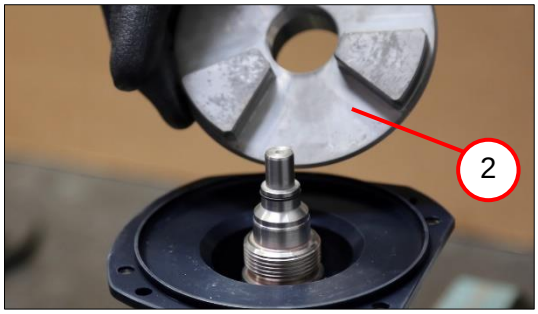
- Assembling the grooved ball bearing
- Assembling the drive shaft

Tools:

- Plastic hammer
- Hook and pin wrench 95/100
- Mounting device 64122134000



1. Secure the bearing housing (**1**) with the mounting device.



2. Position the flywheel (**2**).

3. Screw in the flywheel.

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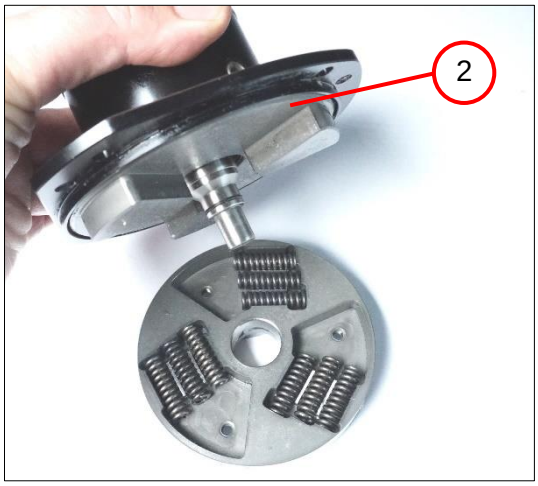
9.4.3 Assembling the flywheel

4. Position the springs (**1**).

INFORMATION

Apply grease to the springs and the spring magazine.

Note the position of the springs.



5. Position the bearing housing (**2**).

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9.4.4 Assembling the grooved ball bearing

Tools:

- Arbor press
- Sleeve, 41 mm outer diameter
- Circlip pliers

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

3. Position the circlip (**2**).

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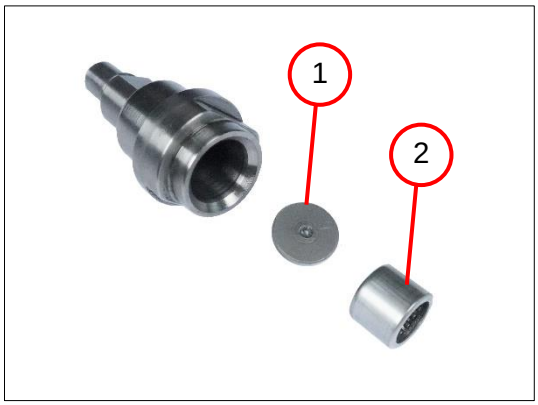
9.4.5 Assembling the drive shaft (with needle bearing)

Steps that must be completed:

- Assembling the grooved ball bearing

Tools:

- Arbor press
- Sleeve, 36 mm outer diameter, 23 mm inner diameter
- Sleeve, 13 mm inner diameter



1. Position the washer (**1**).
2. Position the needle bearing (**2**).

3. Press in the needle bearing (**2**).

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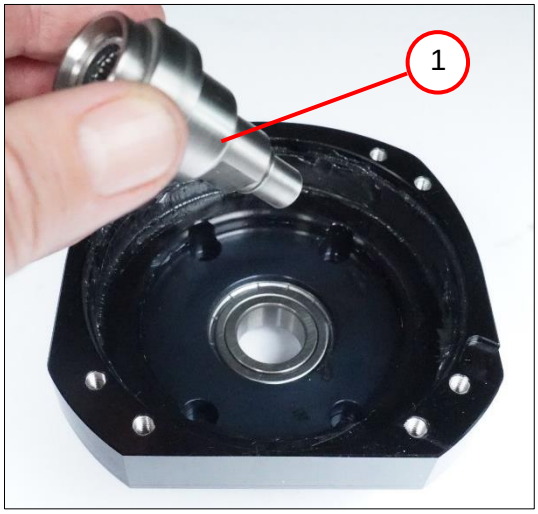
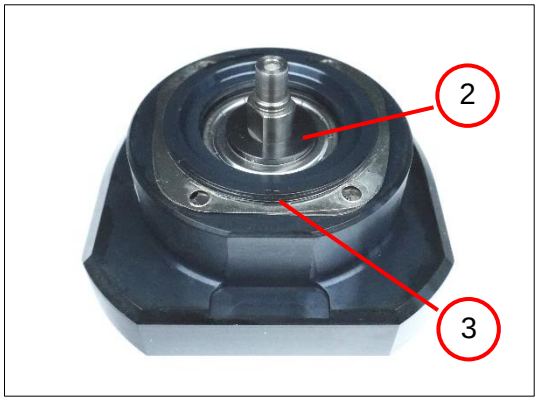
9.4.5 Assembling the drive shaft (with needle bearing)



4. Position the drive shaft (**1**).

5. Press in the drive shaft.



6. Position the washer (**2**).
7. Position the sealing ring (**3**).

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9.4.6 Assembling the crown wheel

Steps that must be completed:

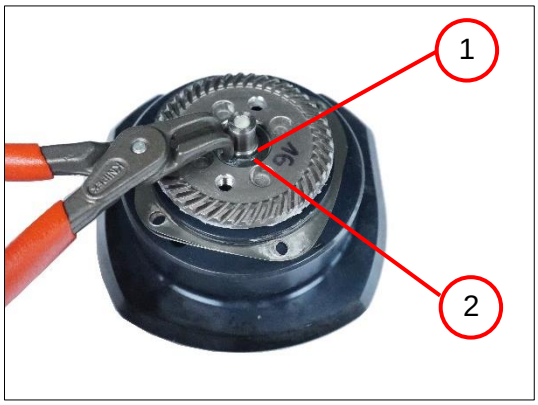
- Assembling the grooved ball bearing
- Assembling the drive shaft (with needle bearing)

Tools:

- Arbor press
- Dial gauge
- Sleeve, 30 mm outer diameter, 18.5 mm inner diameter
- Sleeve, 17 mm outer diameter, 11 mm inner diameter
- Sleeve, 30 mm outer diameter
- Circlip pliers

1. Position the crown wheel (**1**).

2. Press in the crown wheel.



INFORMATION

The bulge of the washer must point in the direction of the circlip.

3. Position the washer (**1**).
4. Position the circlip (**2**).

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9.4.6 Assembling the crown wheel

INFORMATION

Press the circlip into the groove of the drive shaft.

5. Press in the circlip (**2**).

INFORMATION

Use new shims for assembly each time.

6. Position the shims (**3**).

7. Measure the planar play every 90°.

INFORMATION

Maximum planar play 0.09 mm

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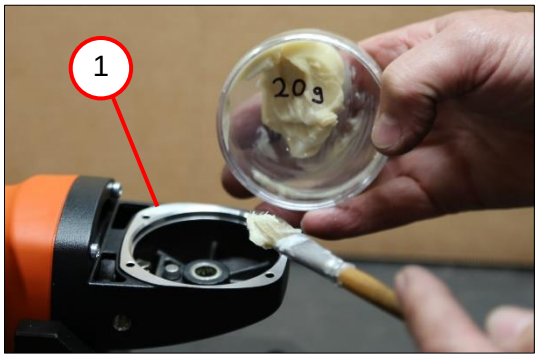
9.4.7 Assembling the gearbox unit

Steps that must be completed:

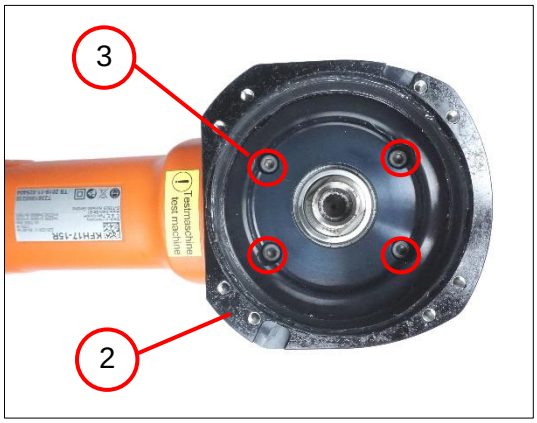
- Assembling the grooved ball bearing
- Assembling the drive shaft
- Assembling the drive shaft (with needle bearing)
- Assembling the crown wheel

Tools:

- Torx T20
- Socket head wrench, 4 mm



1. Fill the gearbox grease.

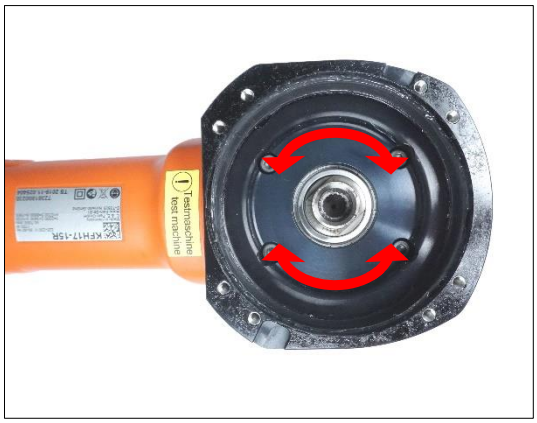


2. Position the housing (**2**) correctly.

INFORMATION

Apply Loctite 242 thread locking compound to the threads.

3. Screw in the four screws (**3**) [4 Nm].



1. Perform a test run.
2. Check gear backlash by turning the drive shaft (4).
3. If there is no gear backlash, a further shim must be inserted between the milling head and the gearbox housing.

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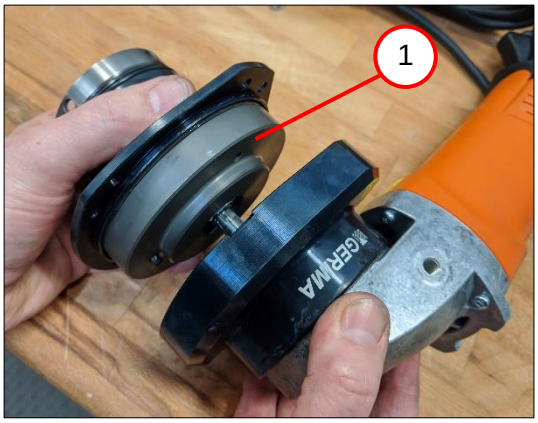
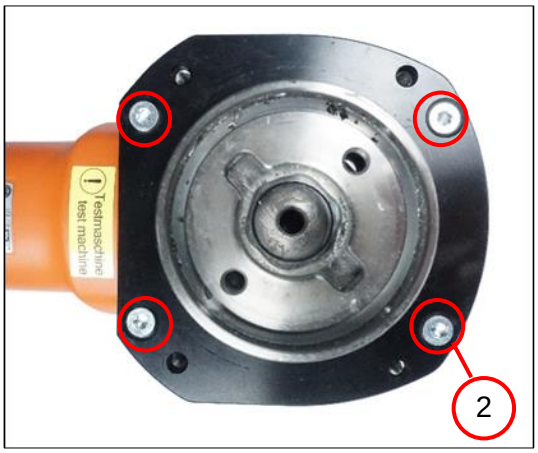
9.4.7 Assembling the gearbox unit



4. Position the bearing housing (**1**)

   Other image



INFORMATION

Apply Loctite 242 thread locking compound to the screws.

5. Screw in the four screws (**2**) [3.6 Nm].

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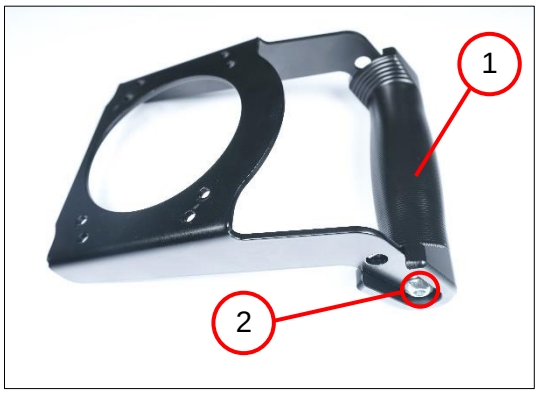
9.4.8 Assembling the handle (milling head)

Tools:

- Socket head wrench, 3 mm
- Socket head wrench, 5 mm



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

INFORMATION

Apply Loctite 242 thread locking compound to the screws.

2. Screw in the screw (**2**) [10 Nm].
3. Repeat step 2 on the opposite side of the machine.

4. Position the holder (**3**).

INFORMATION

Apply Loctite 242 thread locking compound to the screws.

5. Screw in the four screws (**4**) [3 Nm].

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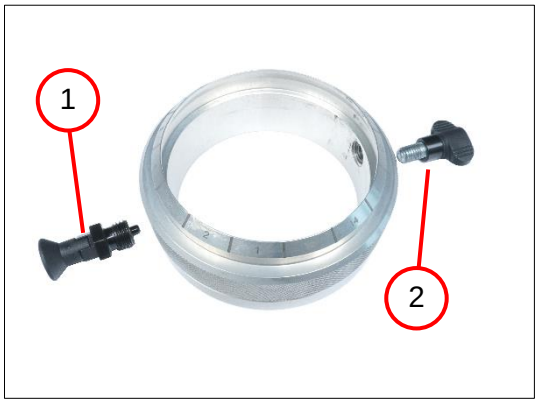
9.4.9 Assembling the guide plate unit

Tools:

- Torx T25
- Torx T20
- Open-end wrench size 15
- Socket head wrench, 5 mm
- Slotted screwdriver



INFORMATION

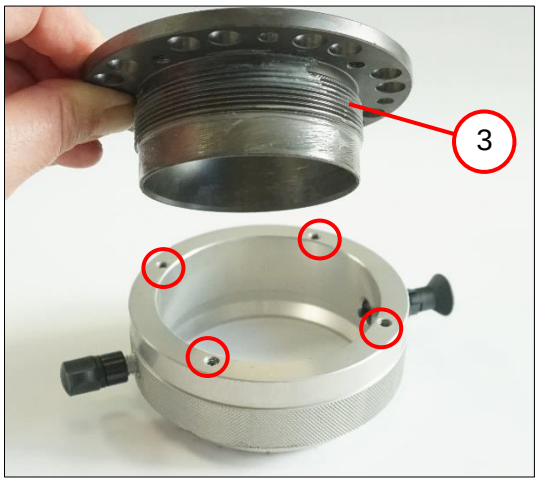
Apply Loctite 242 thread locking compound to the thread of the locking knob (**1**).

1. Turn in the locking knob (**1**).

INFORMATION

Apply grease to the thread of the screw.

2. Screw in the screw (**2**).



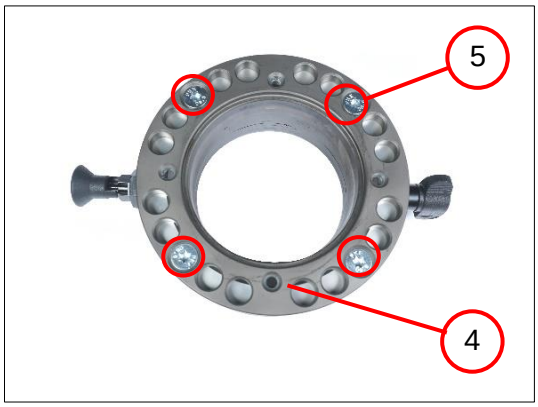
INFORMATION

Apply grease to the thread of the holder (**3**).

3. Position the holder (**3**).

INFORMATION

Apply Loctite 242 thread locking compound to the threads in the adjusting ring.



4. Position the holder (**4**).
5. Screw in the four screws (**5**) [4 Nm].

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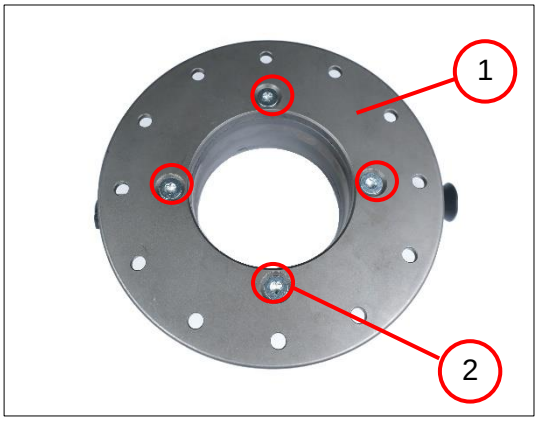
9.4.9 Assembling the guide plate unit

6. Position the sleeve (**3**).

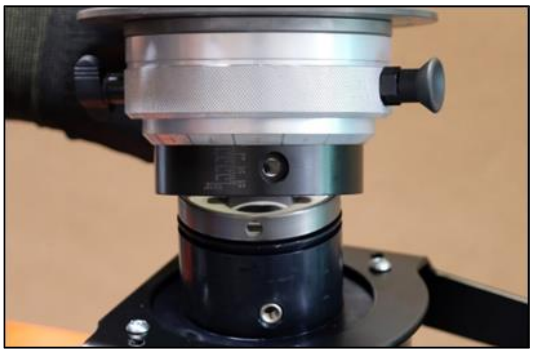
   Sleeve first on gearbox unit: Diagram



INFORMATION

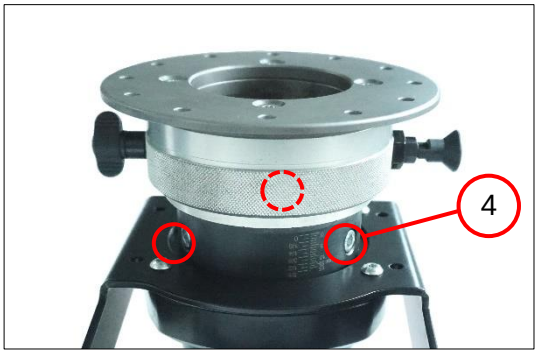
Apply Loctite 242 thread locking compound to the screws.

1. Position the guide plate (**1**).
2. Screw in the four screws (**2**) [4 Nm].



3. Position the guide plate unit.

   Photo similar



INFORMATION

Apply Loctite 242 thread locking compound to the screws.

4. Screw in the three screws (**4**) [6 N].

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10 Inspection following repairs

Always:	Visual inspection
	Speed check
	Insert tool
	Testing (e. g., demo material 1 87 20 198 00 0)
Mains-operated machines:	Electrical safety test
If restart lock present:	Check restart lock
Brake function available:	Brake function check

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