

ABH 18

Repair instructions





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ABH 18



1. Models described

These repair instructions describe how to repair the following models:

Model	Order number
ABH 18	7 140 01
	7 140 02



2. Technical data

Technical data

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

Tests

Up-to-date test data and test instructions after repair can be found on the FEIN Extranet (Customer Service → Repair Guides).

Lubricants / Auxiliary substances

The lubricants or auxiliary substances and their container sizes available from FEIN can be found on the FEIN Extranet (Customer Service → Repair Guides).

Lists of spare parts

Lists of spare parts and exploded views are available online at www.fein.com



3. 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.

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.

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

The relevant accident prevention regulations of the employer's liability insurance associations are to be observed when commissioning.

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

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



4. Tools required

Standard tools

Arbor press

Torx T10

Side-cutting pliers

Blade

Circlip pliers

Plastic hammer

Socket head wrench 3 mm diameter

Soldering station

Cross-tip screwdriver PH 2

Sleeve 10 mm inner diameter; 26 mm outer diameter
 7 mm inner diameter; 15 mm outer diameter

Drawing-off socket cap Chuck cone diameter 26 mm
 Chuck cone diameter 15 mm

Special tools

Drawing-off plate 6 41 14 037 00 0



5. Lubricants and auxiliary substances required

Lubricants

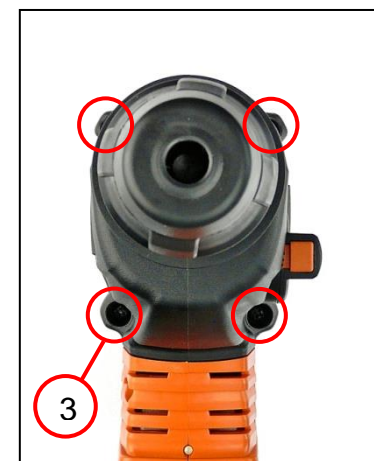
Grease 3 13 48 000 05 2 40 g Gearbox

Auxiliary substances

Thread-locking fluid LOCTITE 272

6. Removal

Removing the motor housing



1. Cut through the type plate.
2. Remove the pressure piece (1).
3. Unscrew the nine screws (2).
4. Unscrew the four screws (3).

Tools:

- Blade
- PH2 cross-head screwdriver



6. Removal

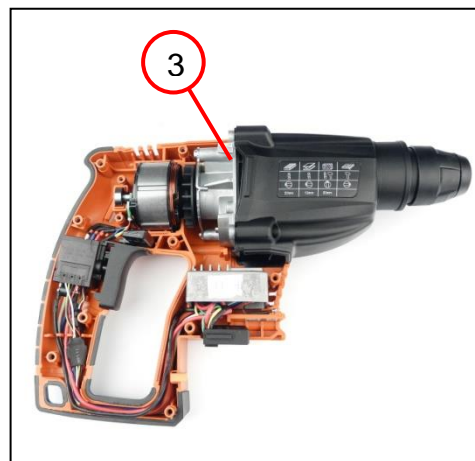
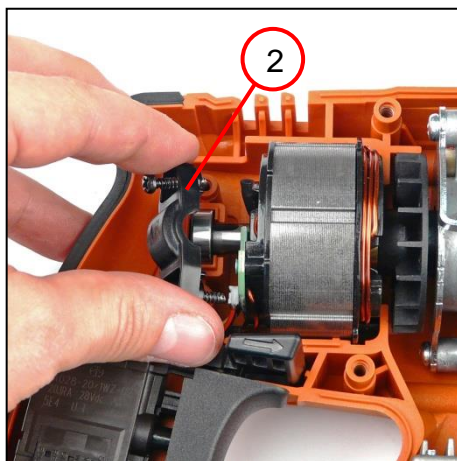
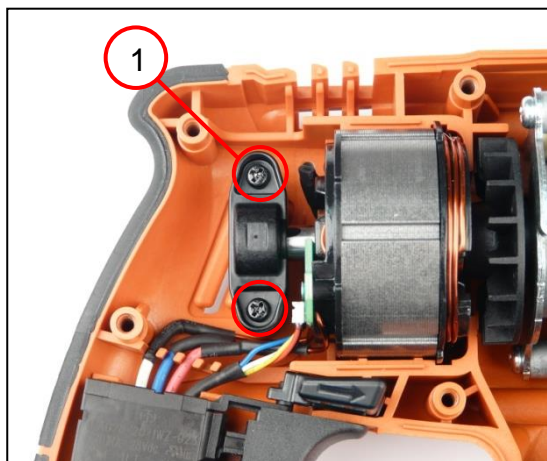
Removing the motor housing



1. Remove the motor housing (1).

6. Removal

Removing the motor housing



1. Unscrew the two screws (1).
2. Remove the holder (2).
3. Remove the gearbox (3).
4. Remove the electrical components.

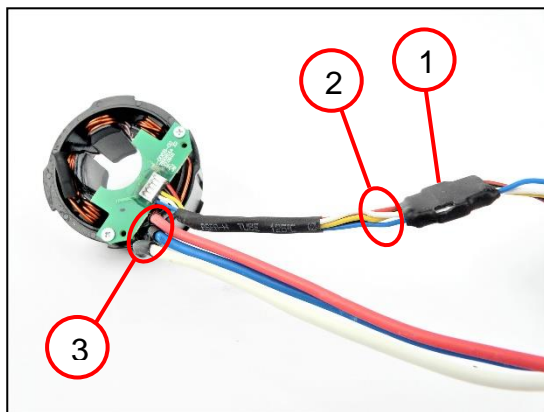
Tools:

- PH2 cross-head screwdriver



6. Removal

Removing the stator



1. Remove the protective hose (1).
2. Disconnect the cables (2) from one another.
3. Remove the protective hoses (3).
4. Unsolder the cables (3).

Tools:

- Blade
- Soldering station

6. Removal

Removing the gearbox housing



1. Remove the protective cap (1).
2. Remove the circlip (2).
3. Remove the cover (3).
4. Remove the disc (4).

Tools:

- Circlip pliers

6. Removal

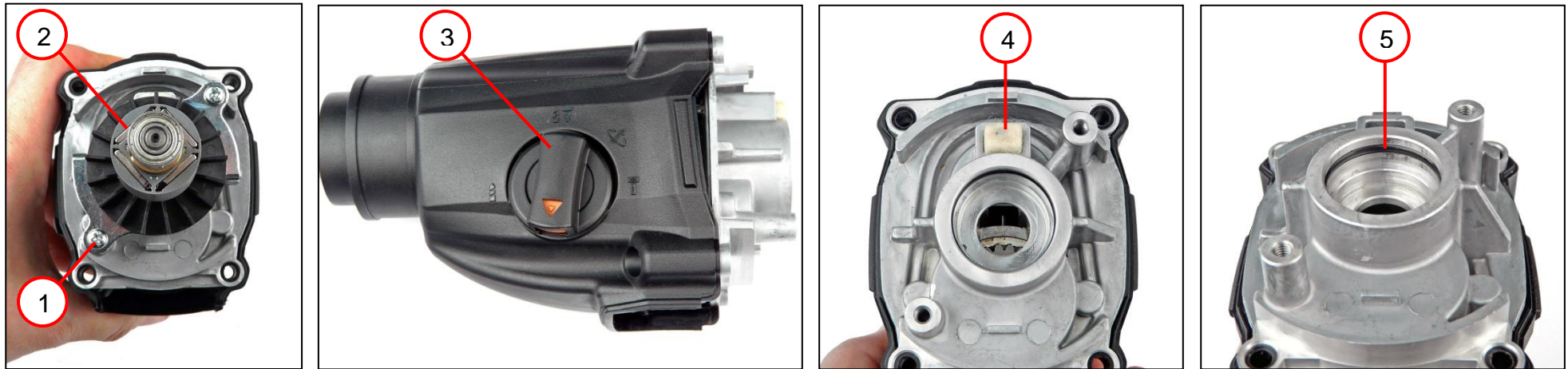
Removing the gearbox housing



1. Remove the ball (1).
2. Remove the covering plate (2).
3. Remove the spring (3).

6. Removal

Removing the gearbox housing



1. Unscrew the two screws (1).
2. Remove the rotor (2).
3. Turn the switch pushbutton (3) to the removal position.
4. Remove the switch pushbutton.
5. Remove the pressure piece (4).
6. Remove the sealing ring (5).

Tools:

- PH2 cross-tip screwdriver

6. Removal

Removing the gearbox housing



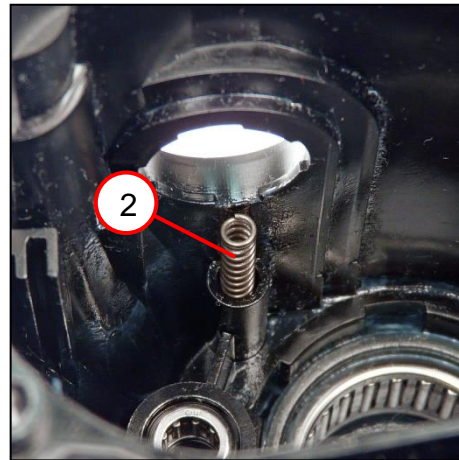
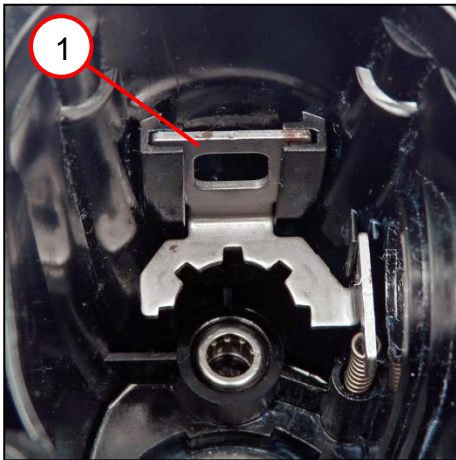
1. Remove the gearbox (1).
2. Remove clutch (2).

Tools:

- Plastic hammer

6. Removal

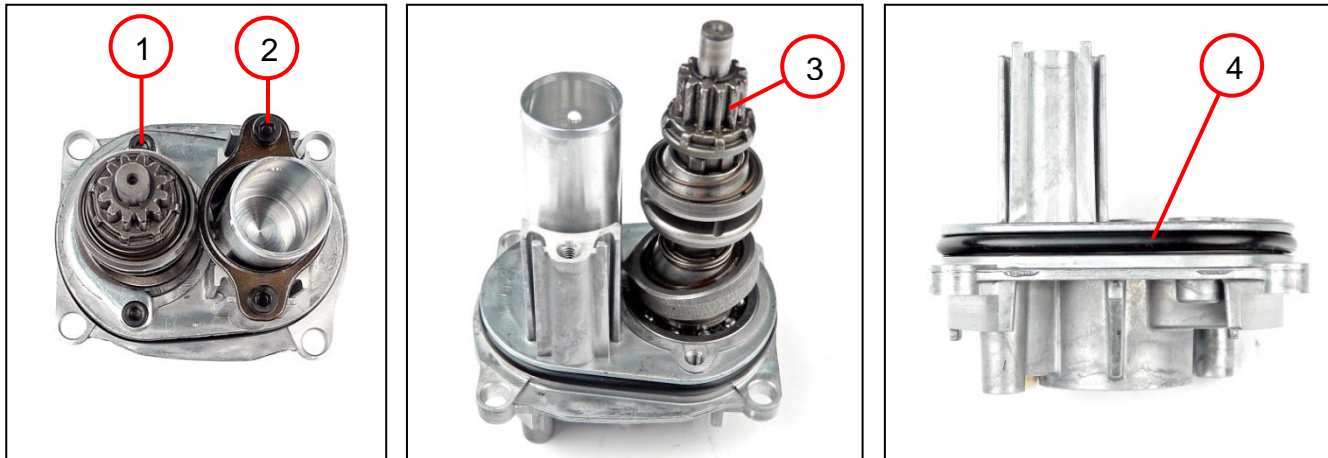
Removing the gearbox housing



1. Remove the plate (1).
2. Remove the spring (2).

6. Removal

Removing the gearbox



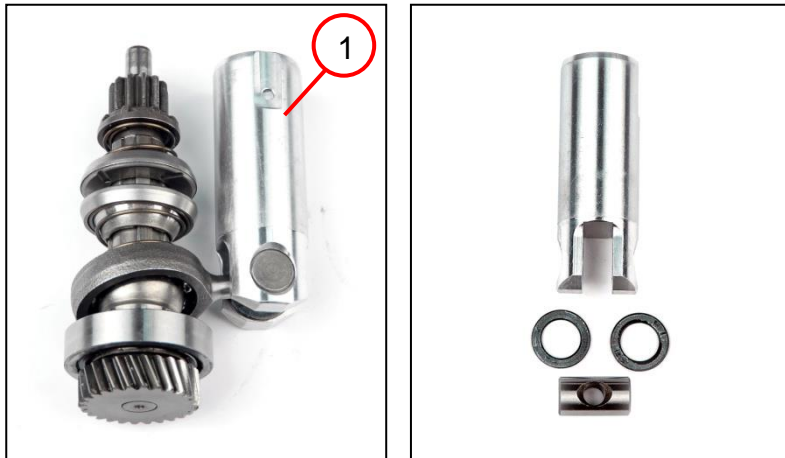
1. Unscrew the two screws (1).
2. Remove the cover.
3. Unscrew the two screws (2).
4. Remove the plate.
5. Remove the striking body (3).
6. Remove the sealing ring (4).

Tools:

- Socket head wrench
3 mm

6. Removal

Removing the striking body



1. Remove the piston (1).



6. Removal

Removing the striking body



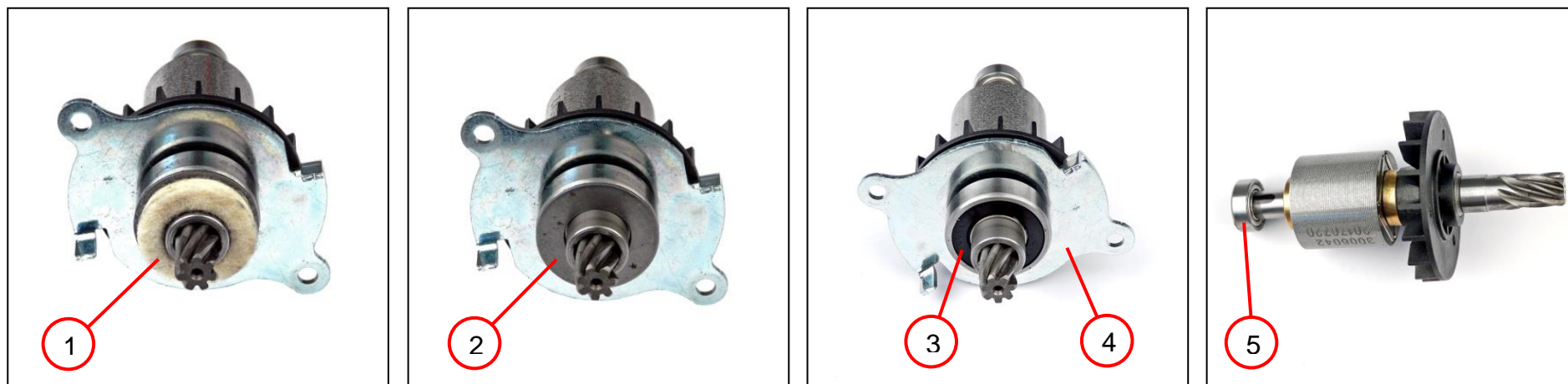
1. Remove the circlip (1).
2. Remove the pinion (2).
3. Remove the spring (3).
4. Remove the disc (4).

Tools:

- Circlip pliers

6. Removal

Removing the rotor



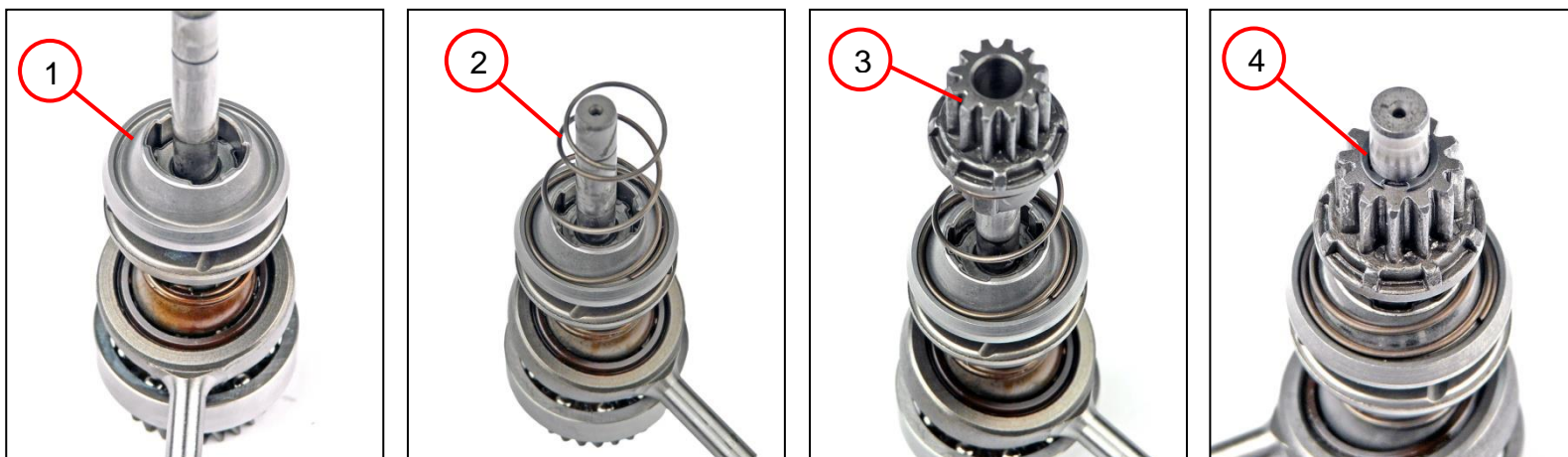
1. Remove the felt ring (1).
2. Remove the disc (2).
3. Pull off the grooved ball bearing (3) and bush.
4. Remove the plate (4).
5. Pull off the grooved ball bearing (5).

Tools:

- Drawing-off socket cap
- Chuck cone, dia. 26 mm
- Chuck cone, 15 mm diameter

7. Fitting

Assembling the clutch



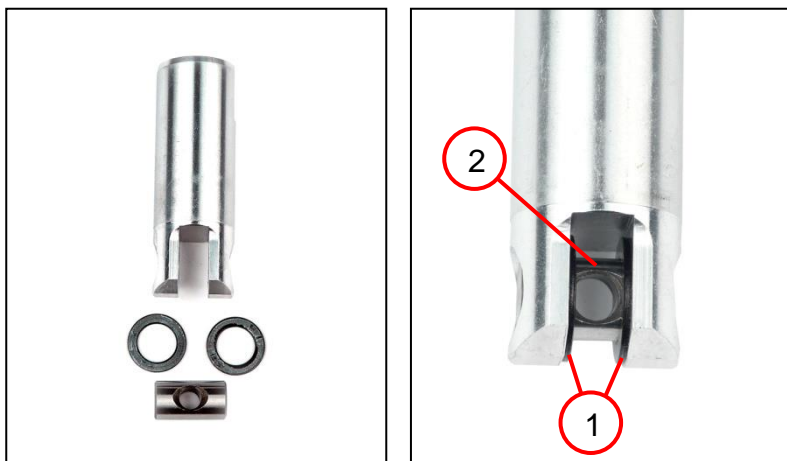
1. Place the disc in the correct position (1).
 2. Place the spring in the correct position (2).
 3. Position the pinion (3).
 4. Fit the circlip (4).
- ☞ Replace the circlip during each fitting.

Tools:

- Circlip pliers

7. Fitting

Fitting the piston



1. Position the two discs (1).
 - ☞ The sharp-edged sides of the discs must be positioned facing inwards. The smooth sides must be positioned against the piston.
2. Position the bolt (2).



7. Fitting

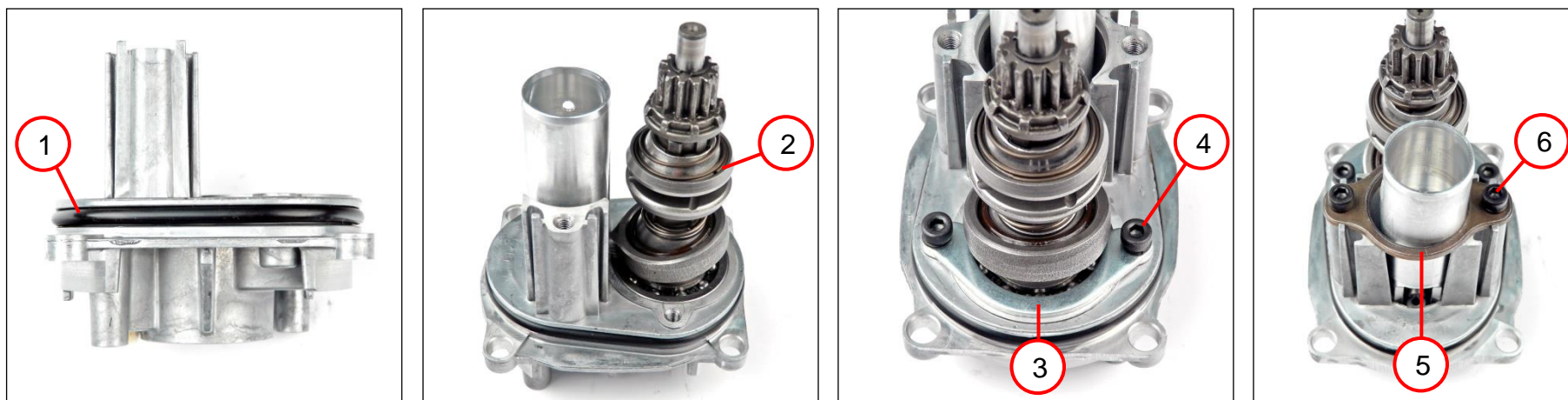
Fitting the gearbox



1. Position the piston (1).

7. Fitting

Fitting the gearbox



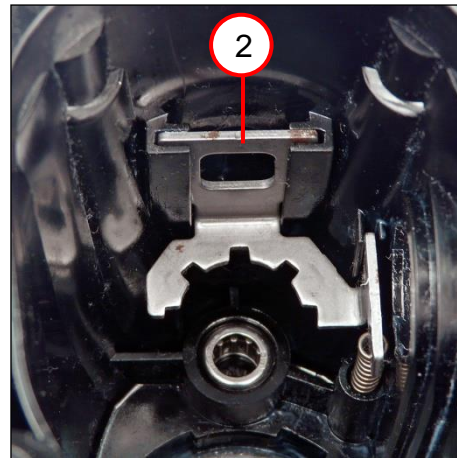
1. Apply a layer of grease to the sealing ring.
2. Position the sealing ring (1).
3. Place the striking mechanism with piston (2) in the correct position.
4. Position the cover (3).
5. Screw in the two screws [M4x10] with spring washer (4).
6. Place the cover in the correct position (5).
7. Screw in the two screws [M4x16] with spring washer (6).

Tools:

- Socket head wrench
3 mm

7. Fitting

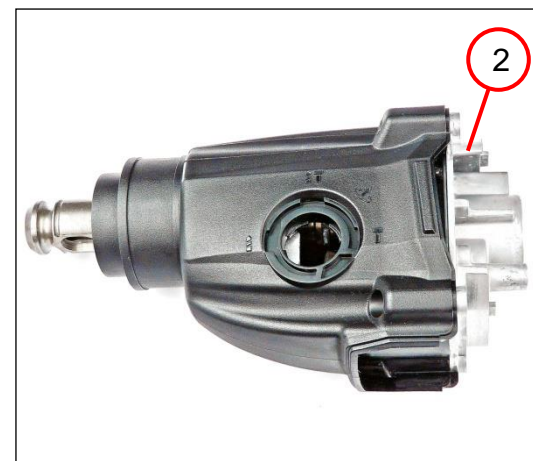
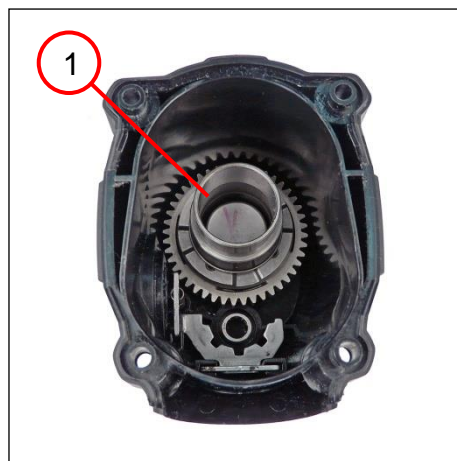
Fitting the gearbox



1. Position the spring (1).
2. Position the plate (2).

7. Fitting

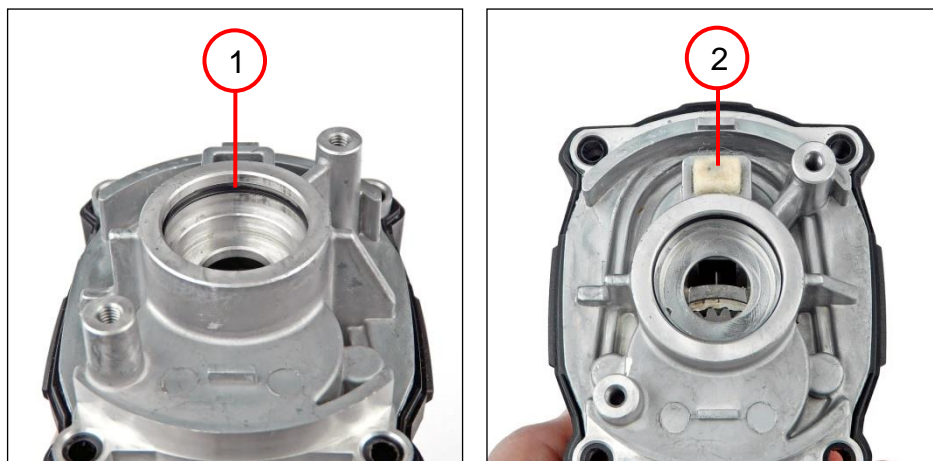
Fitting the gearbox



1. Coat the clutch with grease.
2. Insert the clutch (1).
3. Fill the gearbox housing with grease.
4. Insert the gearbox (2).

7. Fitting

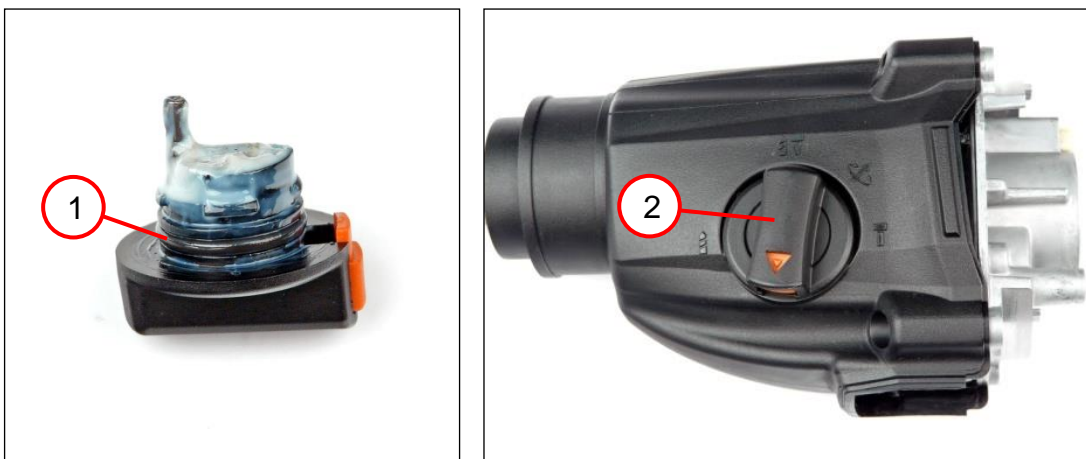
Fitting the gearbox



1. Grease the sealing ring (1).
2. Fit the sealing ring.
3. Place the pressure piece (2) in the correct position.

7. Fitting

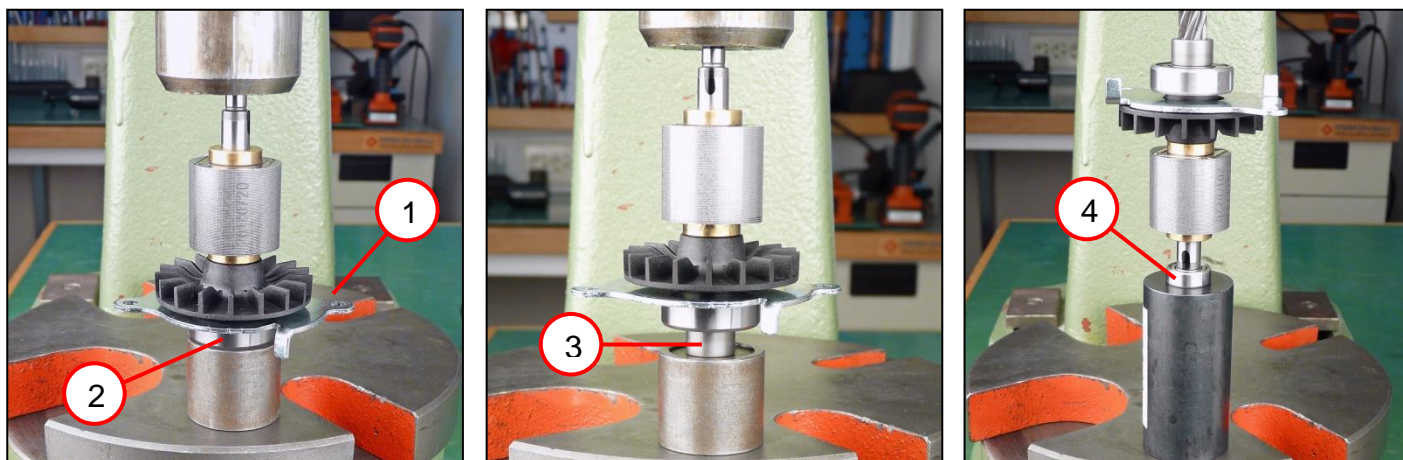
Fitting the gearbox



1. Grease the sealing ring (1).
2. Position the sealing ring.
3. Fit the switch pushbutton in the correct position (2).

7. Fitting

Fitting the rotor



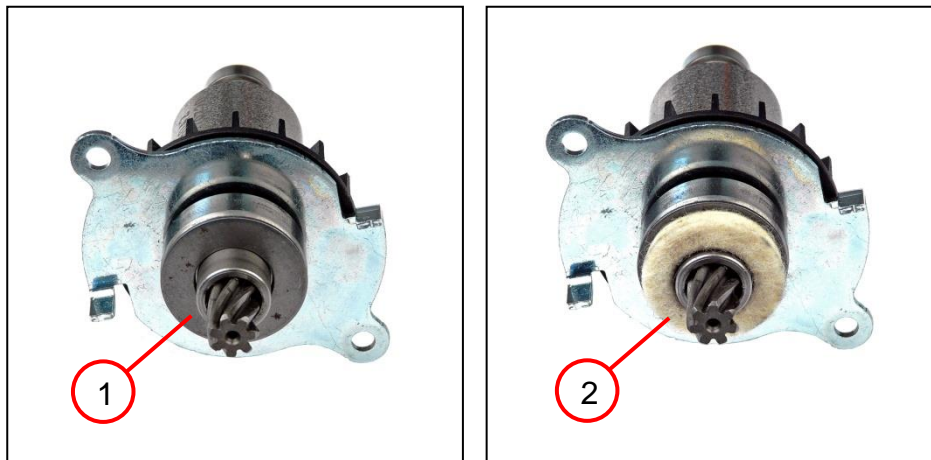
1. Place plate (1) in correct position.
2. Press on the grooved ball bearing (2).
3. Press on bush (3).
4. Press on the grooved ball bearing (4).

Tools:

- Arbor press
- Sleeve Inner
dia. 10 mm
Outer dia. 26 mm
- Sleeve
7 mm inner diameter
15 mm outer diameter

7. Fitting

Fitting the rotor



1. Position the disc (1).
2. Soak the felt ring (2) in oil.
3. Position the felt ring.

7. Fitting

Fitting the armature



1. Position the rotor (1).
☞ Note the position of the plate on the rotor.
2. Coat the two screws with thread-locking fluid.
3. Screw in the two screws (2).

Tools:

- PH2 cross-head screwdriver

7. Fitting

Fitting the gearbox housing



1. Place the spring in the correct position (1).
2. Place the covering plate in the correct position (2).
3. Grease the ball (3).
4. Position the ball (3).

7. Fitting

Fitting the gearbox housing



1. Position the disc (1).
2. Position the cover (2).
3. Position the circlip (3).
4. Grease the protective cap (4).
5. Position the protective cap (4).

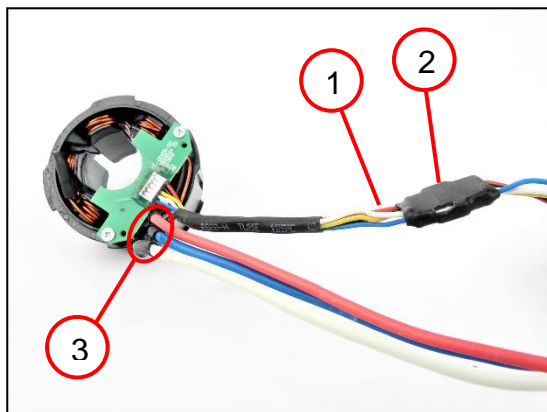
Tools:

- Circlip pliers



7. Fitting

Fitting the stator



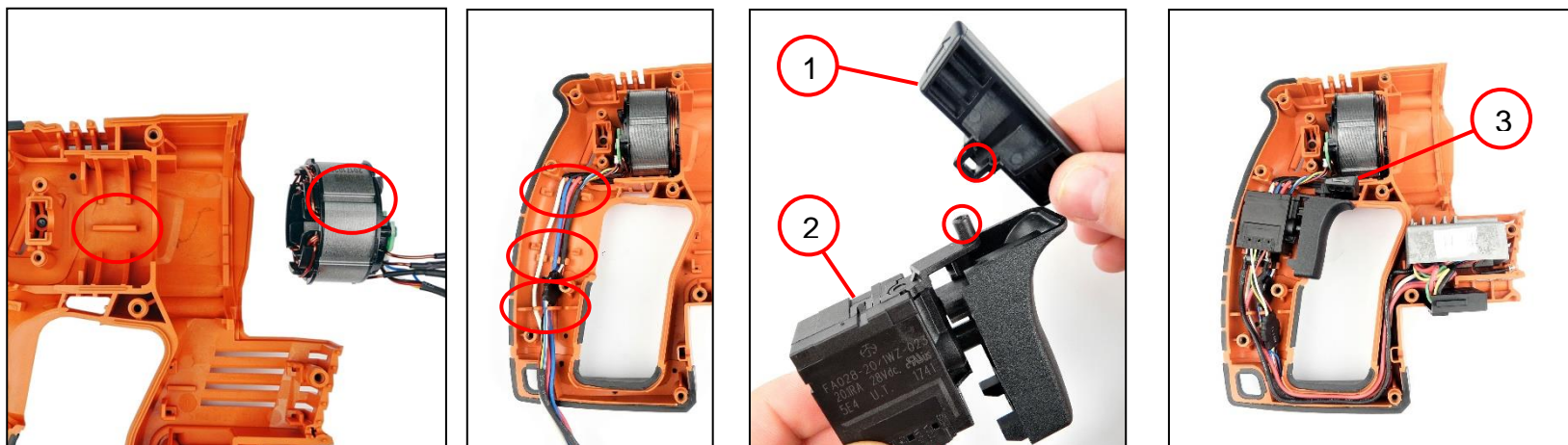
1. Connect the cables (1).
2. Position the protective hose (2).
3. Solder the cables (3) as shown in connection diagram.
4. Position a protective hose on each of the cables (3).

Tools:

- Soldering station

7. Fitting

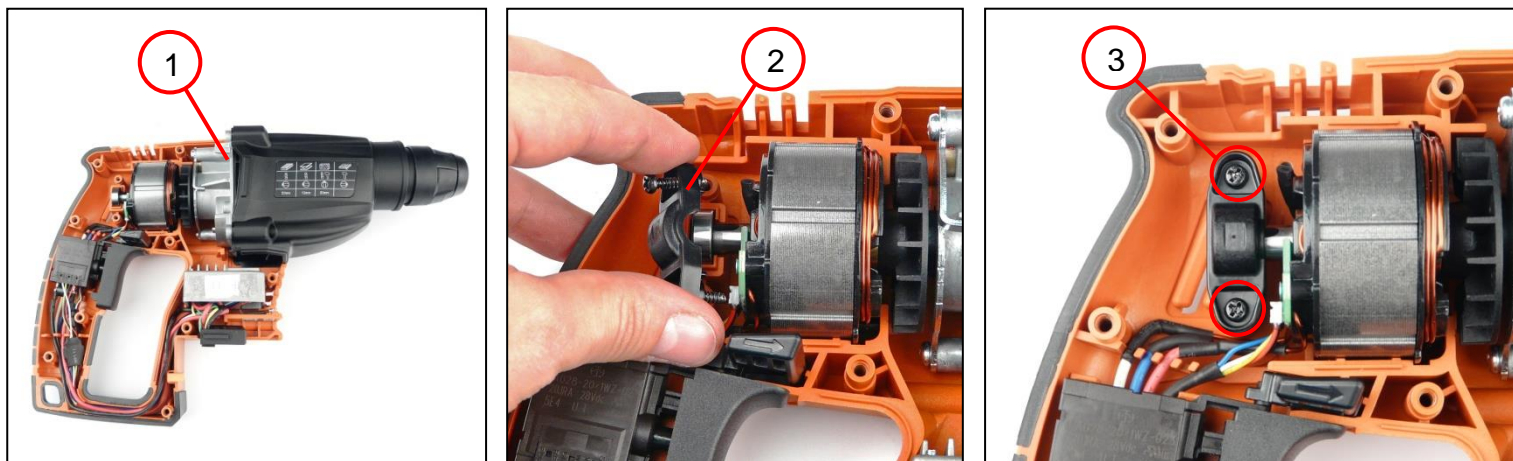
Fitting the motor housing



1. Place the stator in the correct position.
2. Route the cables.
3. Connect the toggle switch (1) to the switch (2) in the correct position.
4. Position the toggle switch with the switch (3).
5. Position all electrical components.

7. Fitting

Fitting the motor housing



1. Position the gearbox (1).
2. Place the holder in the correct position (2).
3. Screw in the two screws (3).

Tools:

- PH2 cross-head screwdriver

7. Fitting

Fitting the motor housing



1. Position the housing (1).
2. Screw in the nine screws (2).
3. Screw in the four screws (3).
4. Place the pressure piece (4) in the correct position.

Tools:

- PH2 cross-head screwdriver

8. Troubleshooting

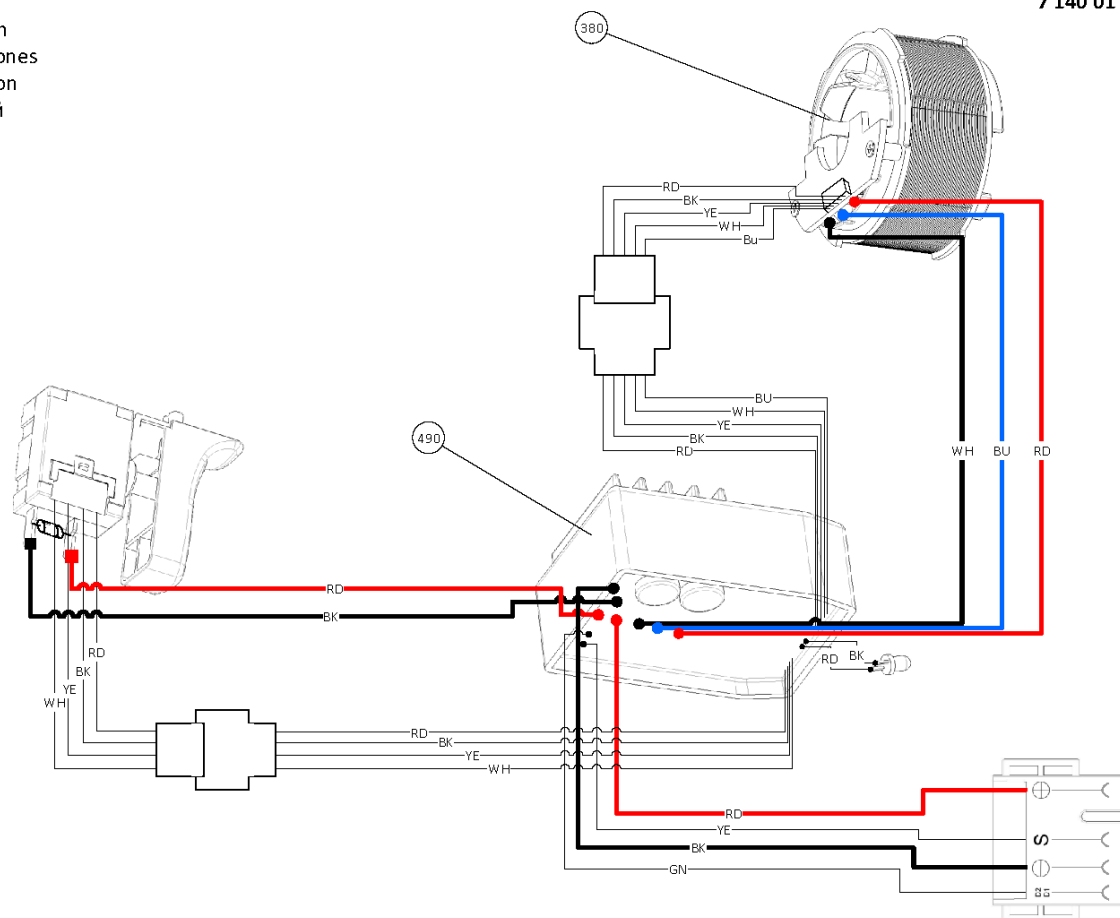
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9. Connection diagram

Anschlussplan
 Connection diagram
 Esquemade conexiones
 Schémade connexion
 Схема соединений
 接线图

7 140 01 – ABH18 / 18V d.c.



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