

MAINTENANCE MANUAL

SERIE SUPERCOMBINATA®

SC3



 **elisa**®
Super Xtrafactory Devices



Summary

5	SC3	- 3 -
5.1	Removal of the housing	- 3 -
5.2	Removal of the PC Board	- 10 -
5.3	Removal of the brushes	- 12 -
5.4	Removal of the brush holders	- 13 -
5.5	Removal of the armature	- 15 -
5.6	Removal of the friction	- 18 -
5.7	Removal of the gearbox lever	- 21 -

5 SC3

5.1 Removal of the housing

CAUTION: Procedure to be performed by trained and experienced personnel only.
(Risk of electric shock)



Danger!
Risk of death by electric shock.

Below is the procedure for the removal of the housing.

- 5.1.1 Ensure that the entire unit consisting of the control panel and the boring machine is disconnected from the power supply (Disconnect power plug);
- 5.1.2 Proceed to the removal of the housing of the boring machine, as shown in the following figures.

N.B. For all models made before 08/01/2020, first remove the handwheel as described in the attachment.

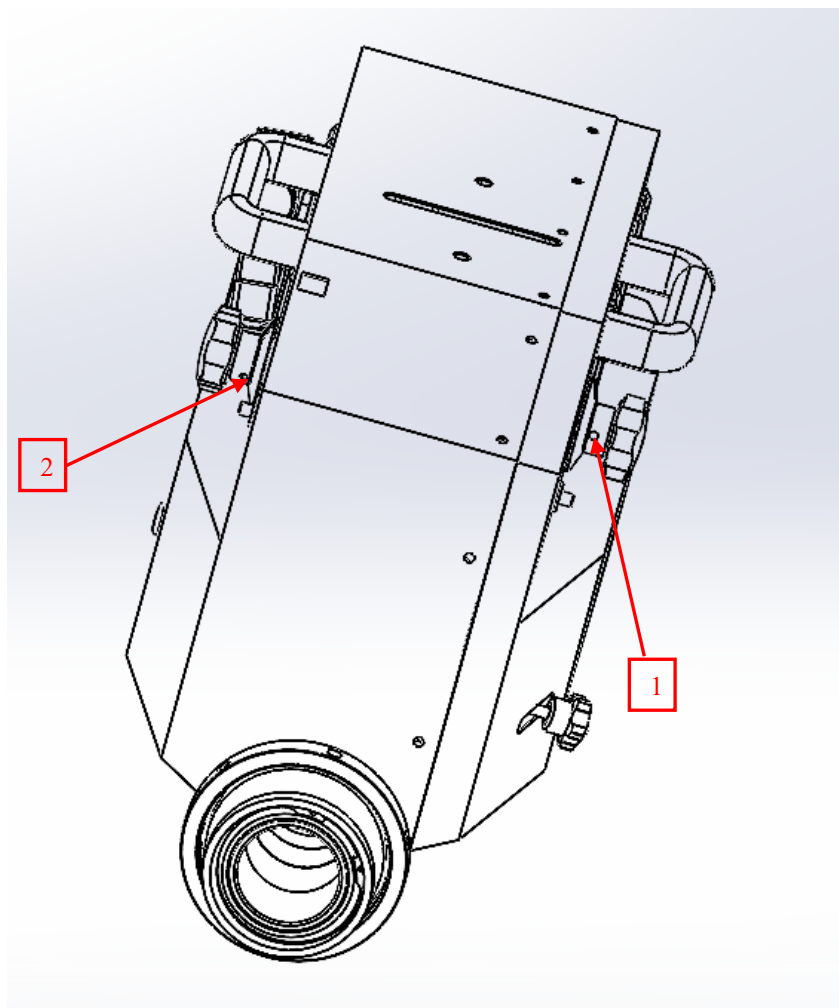


Figure 5.1

- 5.1.3 Unscrew the two locking grub screws shown in figure 5.1 – position 1 – position 2 and pull out the gear knobs;

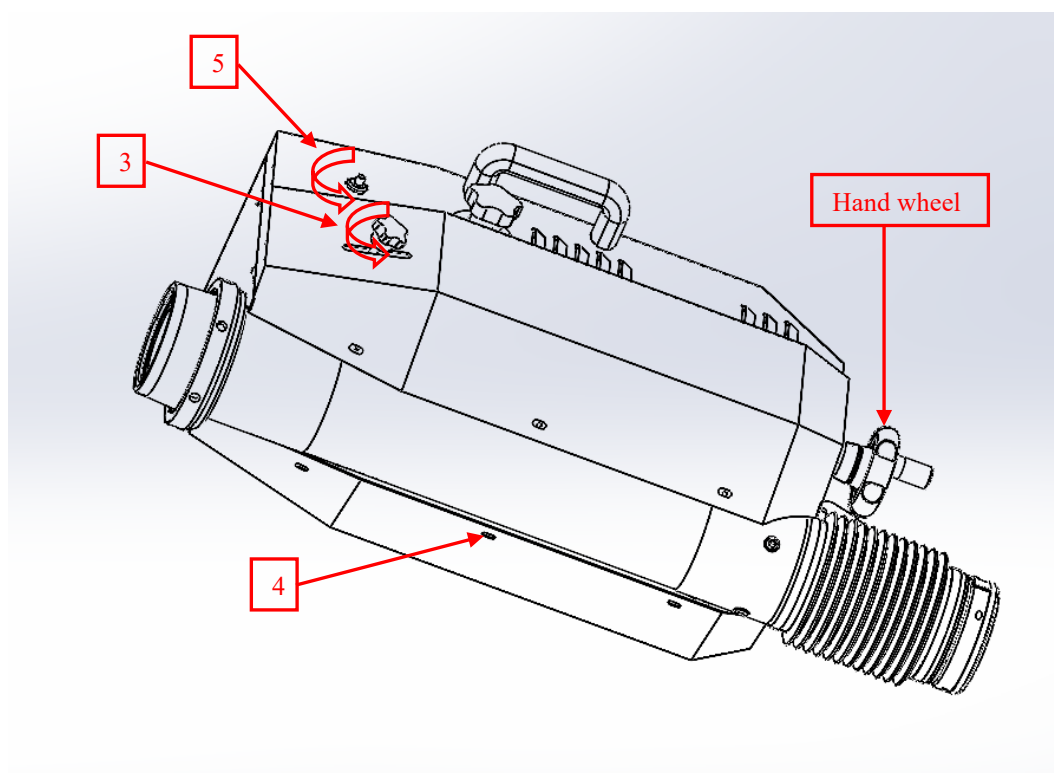


Figure 5.2

- 5.1.4 Unscrew the welding engagement lever knob shown in figure 5.2 – position 3;
- 5.1.5 Unscrew the lower housing fixing screws, as shown in figure 5.2 – position 4;
- 5.1.6 Unscrew the fixing nut, as shown in figure 5.2 – position 5;

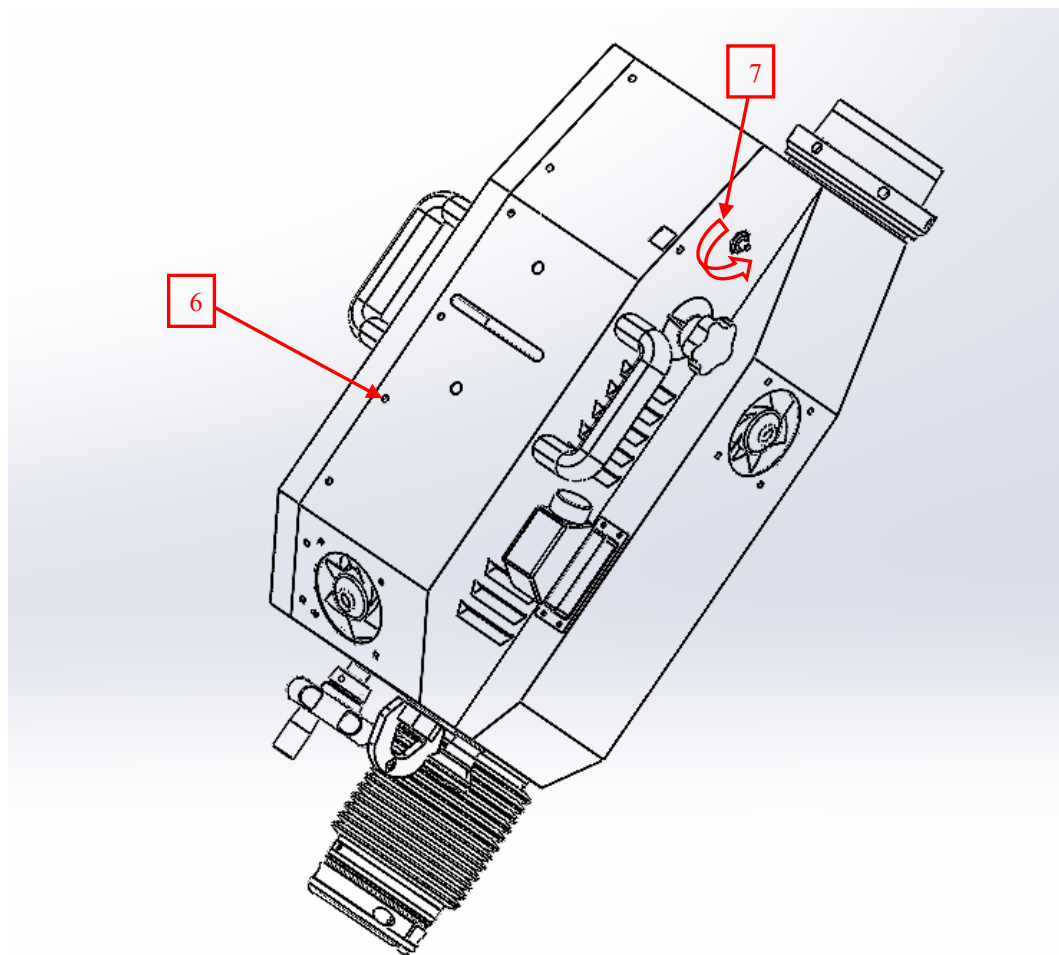


Figure 5.3

- 5.1.7 Unscrew the screws securing the housing at the top, as shown in figure 5.3 - position 6;
- 5.1.8 Unscrew the fixing nut, as shown in figure 5.3 – position 7;

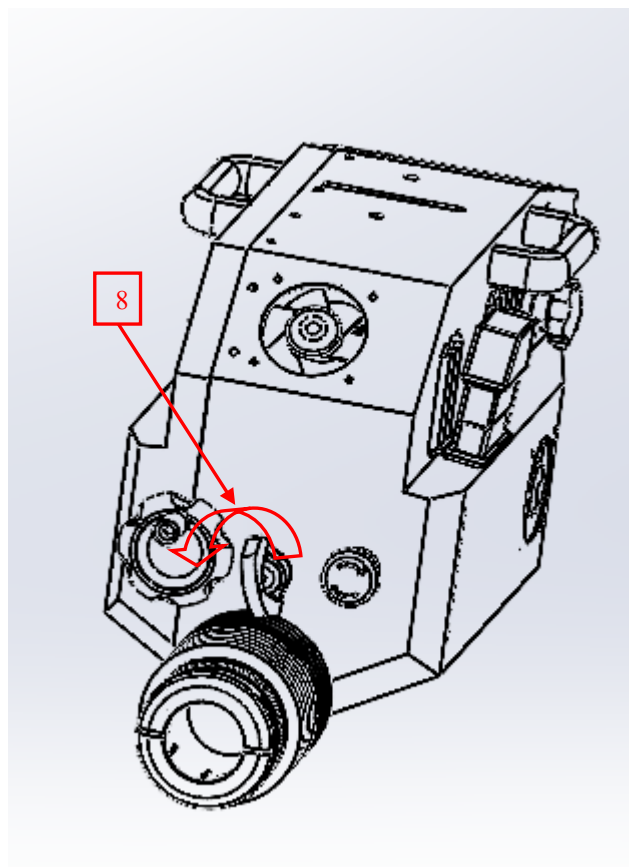


Figure 5.4

- 5.1.9 Unscrew the hook located near the stop button, as shown in figure 5.4 – position 8;

5.1.10 Unscrew the four screws securing the socket positioned at the side, as shown in figure 5.5 – position 9.



Figure 5.5

5.1.11 Remove the housing by passing the socket through the hole in the housing as shown in figure 5.5.

5.1.12 Proceed to remove the electrical connection with the emergency stop button, as shown in figure 5.6.

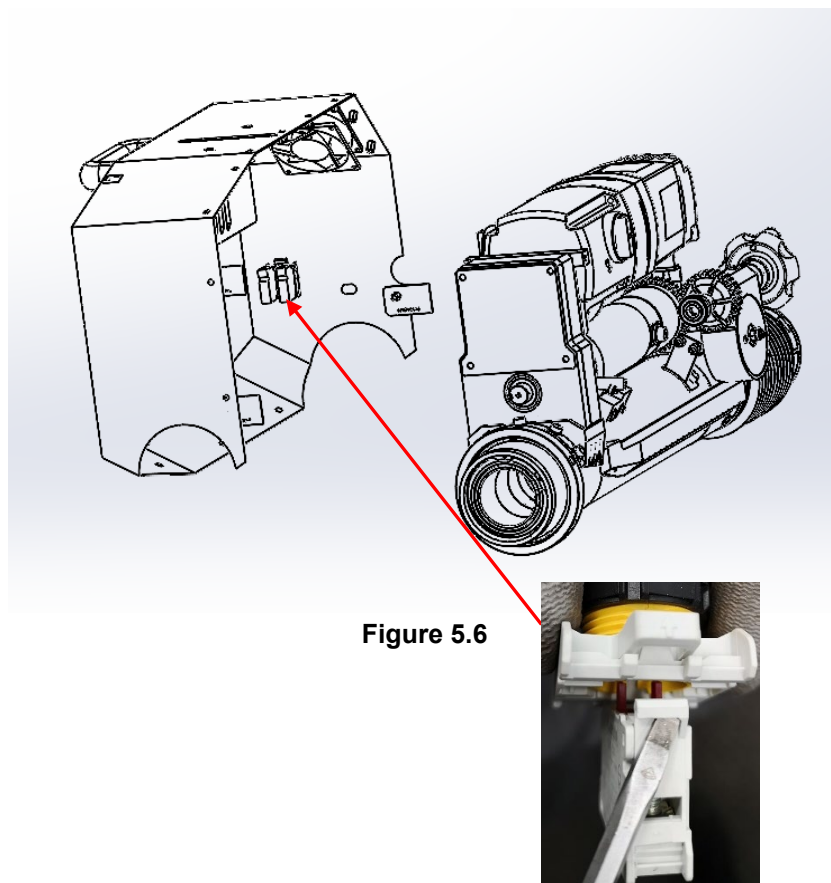


Figure 5.6

5.1.13 Proceed to disconnect the cables marked with numbers 14-15 on the terminal board, (see figure 5.7).

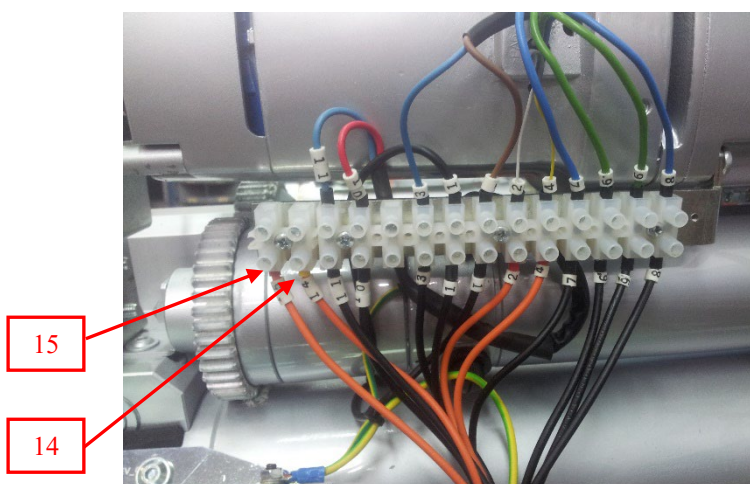


Figure 5.7

5.2 Removal of the PC Board

- 5.2.1 Proceed to remove the motor protection cover, unscrewing the four screws shown in figure 5.8 – position 1 and the 2 anchor screws as shown in figure 5.8 – position 2 and remove the COE01016 in position 3 – figure 5.8;

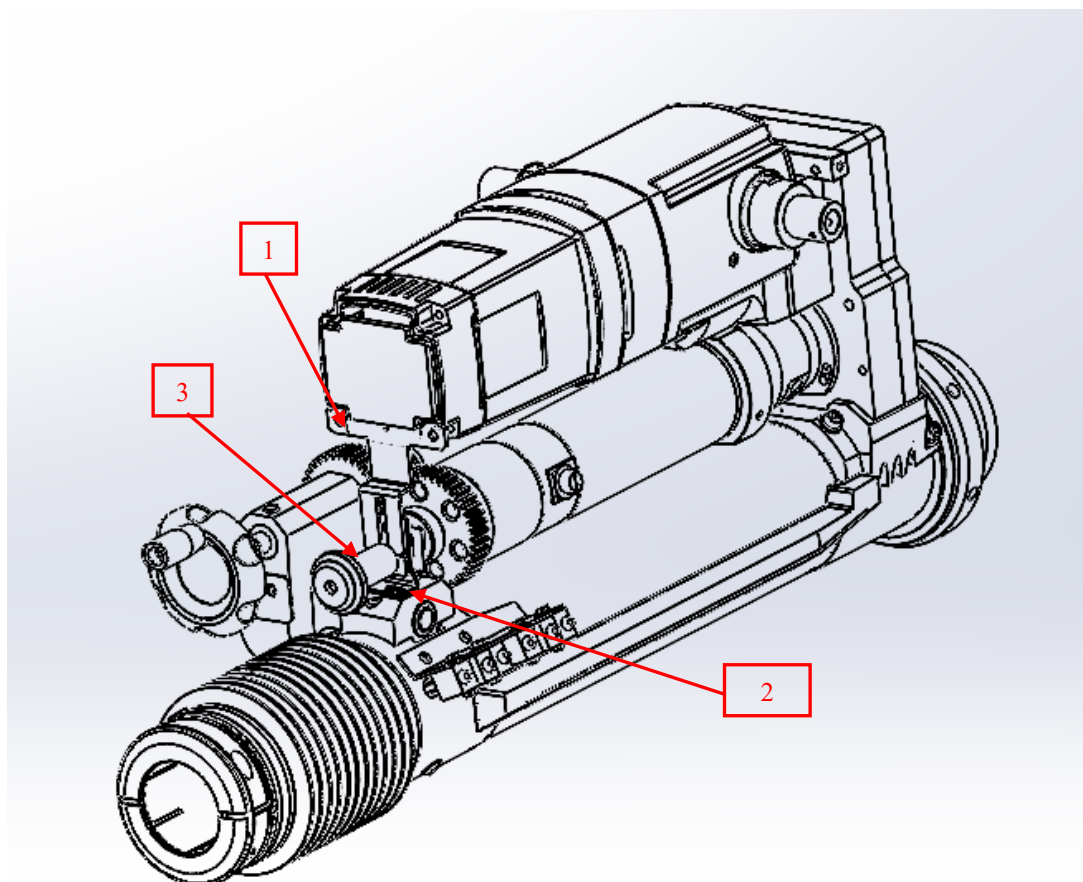


Figure 5.8

5.2.2 Proceed to disconnect the cables from the board, taking care, when reassembling, to restore the connections as shown in the figure 5.10;

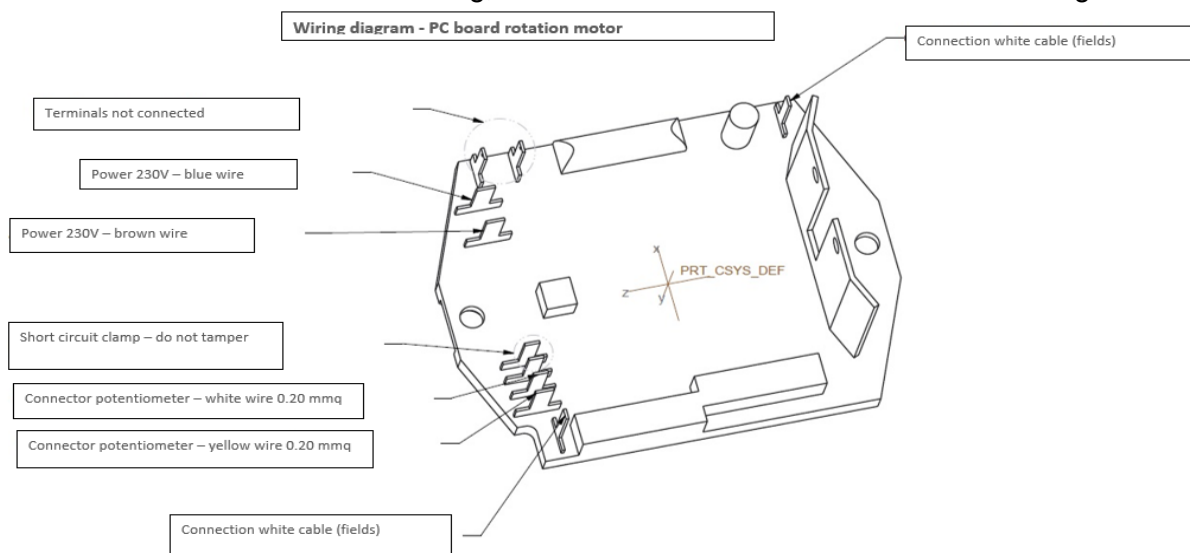


Figure 5.10

5.2.3 Unscrew the two screws as shown in figure 5.9 – position 3 and pull the motor board in the direction of the arrow (Fig. 5.9);

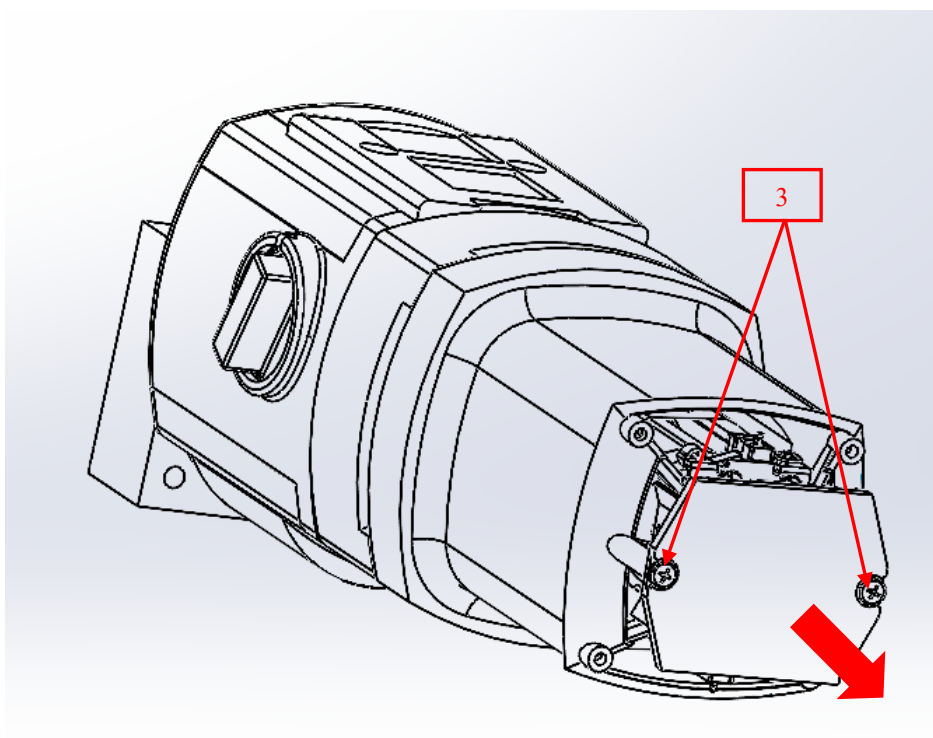


Figure 5.9

5.3 Removal of the brushes

- 5.3.1 Using a screwdriver, first unhook the spring in figure 5.11 – position 1, loosen the screw in position 2 – figure 5.11 and remove the brush in position 3 – figure 5.11;
- 5.3.2 To replace the other brush, repeat the operations described in point 5.3.1.

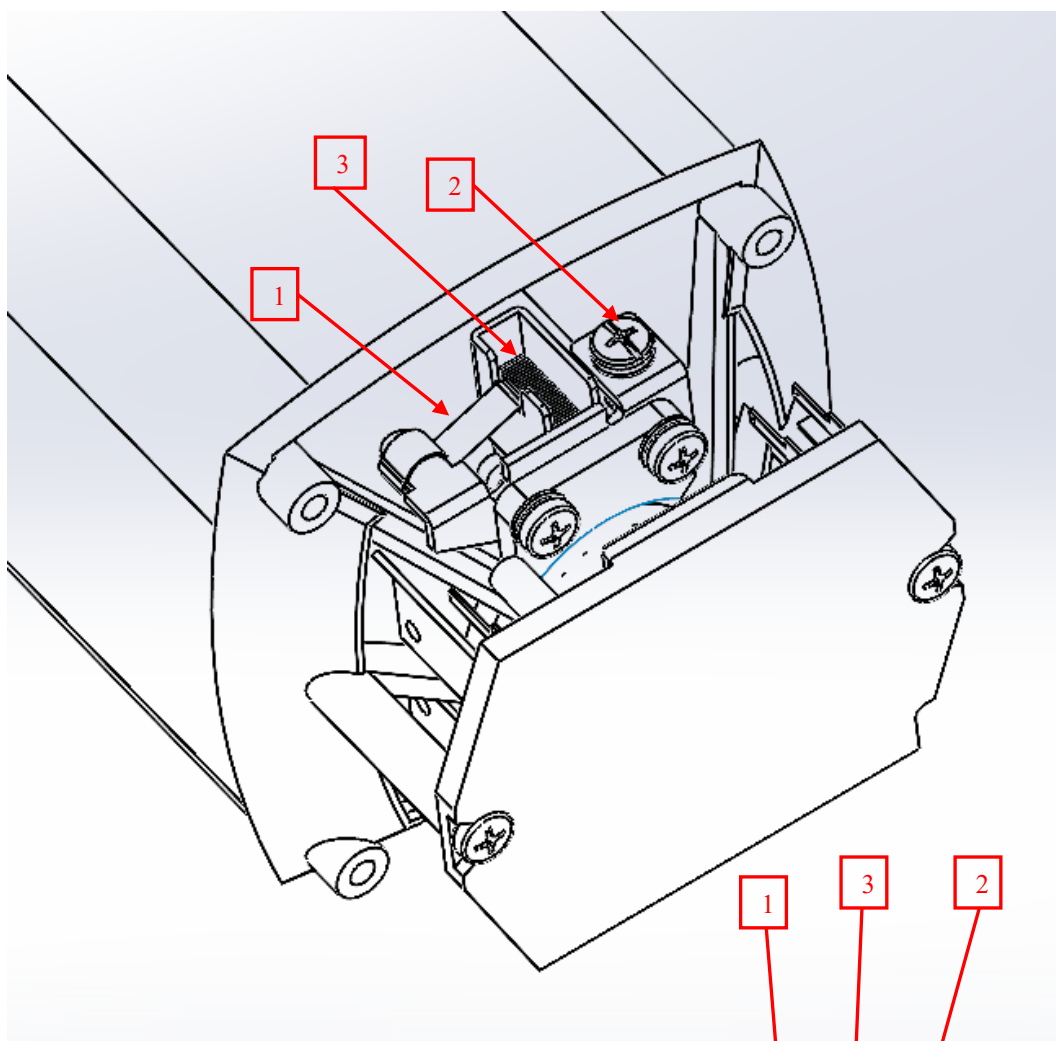
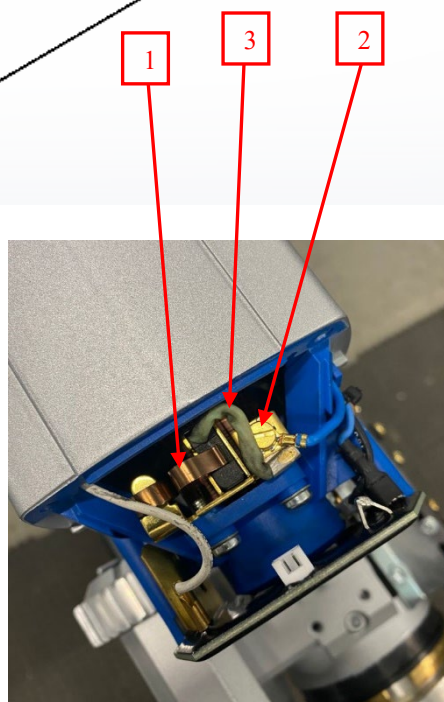


Figure 5.11



5.4 Removal of the brush holders

- 5.4.1 Proceed to disconnect the cables from the board;
- 5.4.2 Loosen the two screws as shown in figure 5.12 – position 1, unhook the springs in position 2 – figure 5.12 – with the help of a screwdriver and unscrew the four screws in position 3 – figure 5.12;

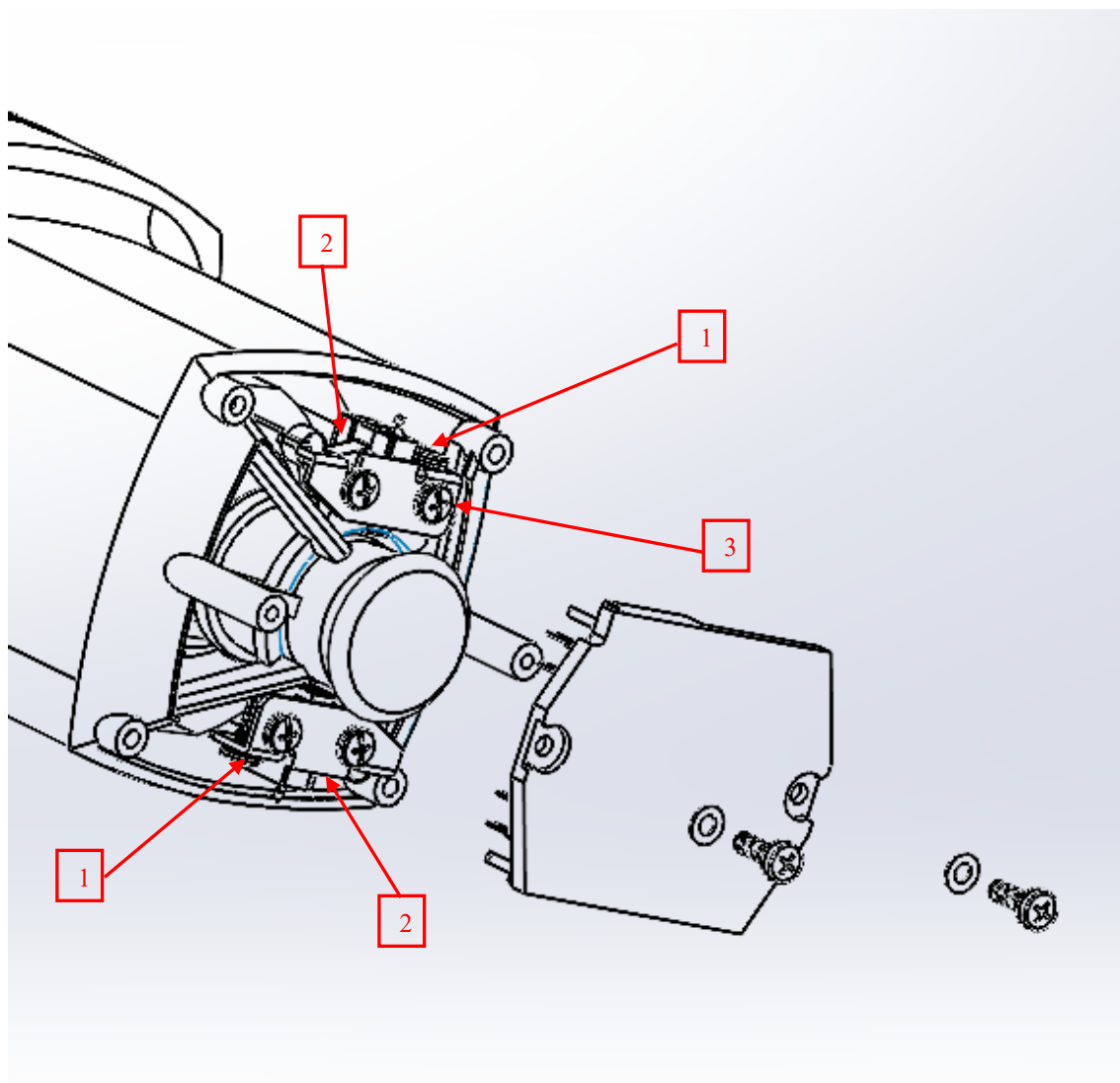


Figure 5.12

5.4.3 Proceed to remove the brush holders as in figure 5.13.

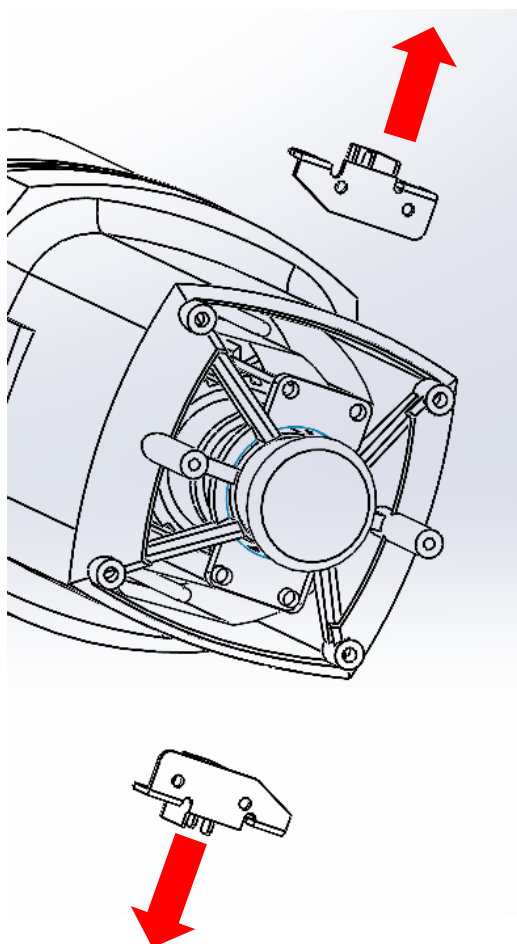


Figure 5.13

5.5 Removal of the armature

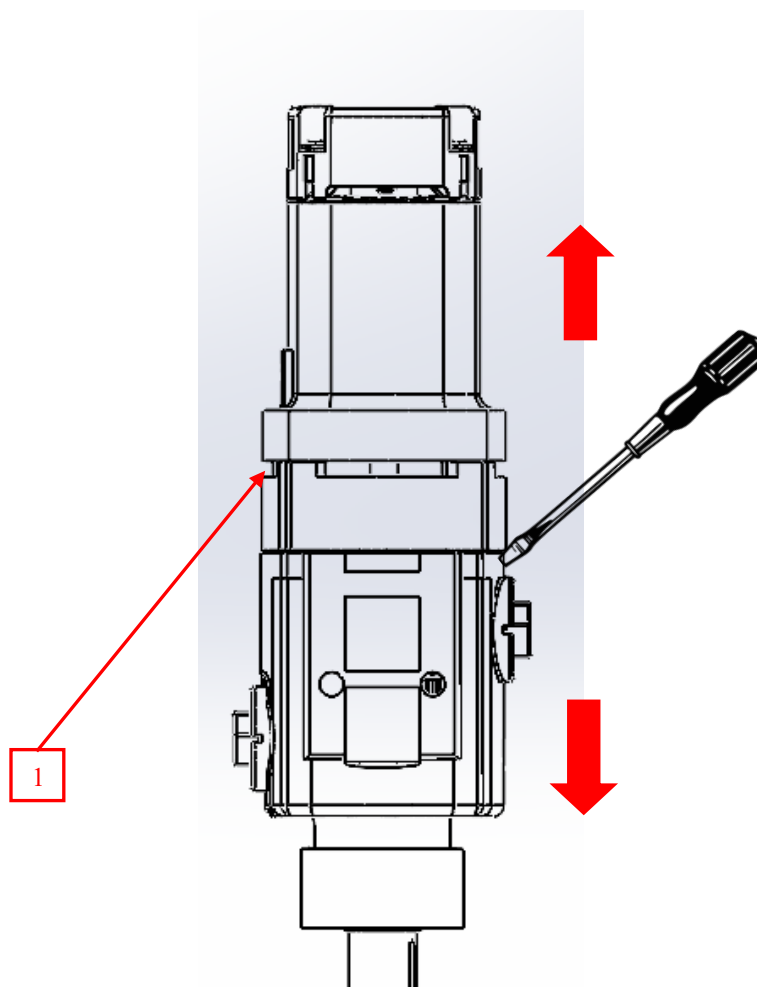


Figure 5.14

- 5.5.1 Place the motor in a vertical position and then unscrew the screws as shown in figure 5.14 – position 1;
- 5.5.2 Use a screwdriver to pry the two parts apart as shown in figure 5.14;

- 5.5.3 Once the two parts are separated, place the gearbox part vertically as in figure 5.15, to prevent grease from escaping;
- 5.5.4 Using a screwdriver, pry and remove the piece in the direction of the red arrow (see figure 5.15);
- 5.5.5 Once the armature has been pulled, pay attention to the magnetic ring, highlighted in the circle in figure 5.15;

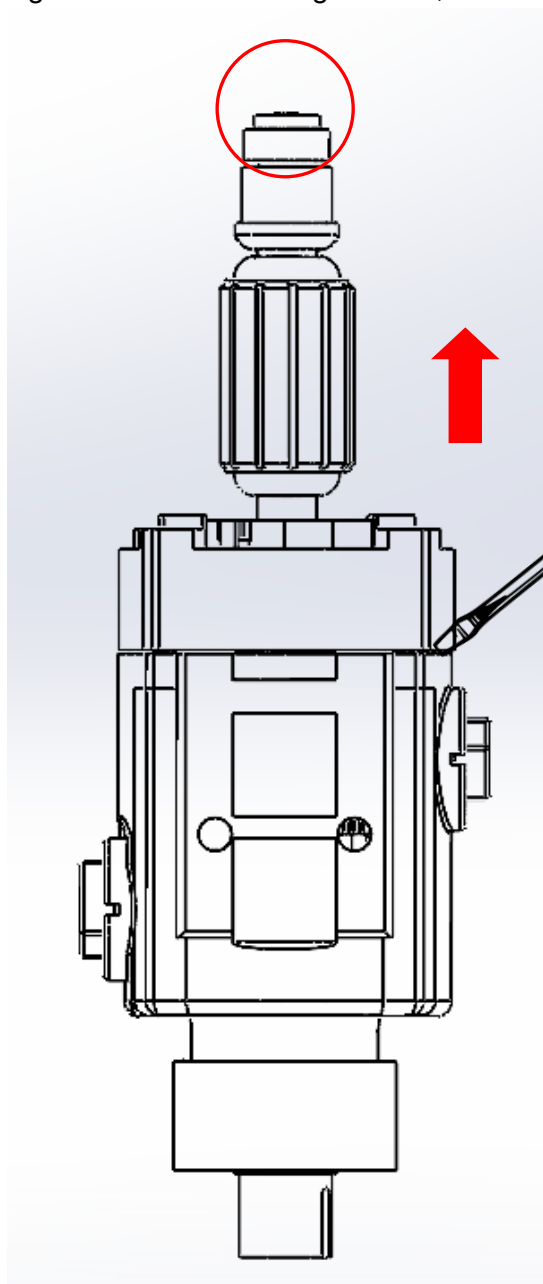


Figure 5.15

- 5.5.6 Remove the seeger ring as in figure 5.16 – posizione 2;
- 5.5.7 Gently tap on position 3 (figure 5.16) and proceed with the removal of the armature by pulling in the direction of the arrow.

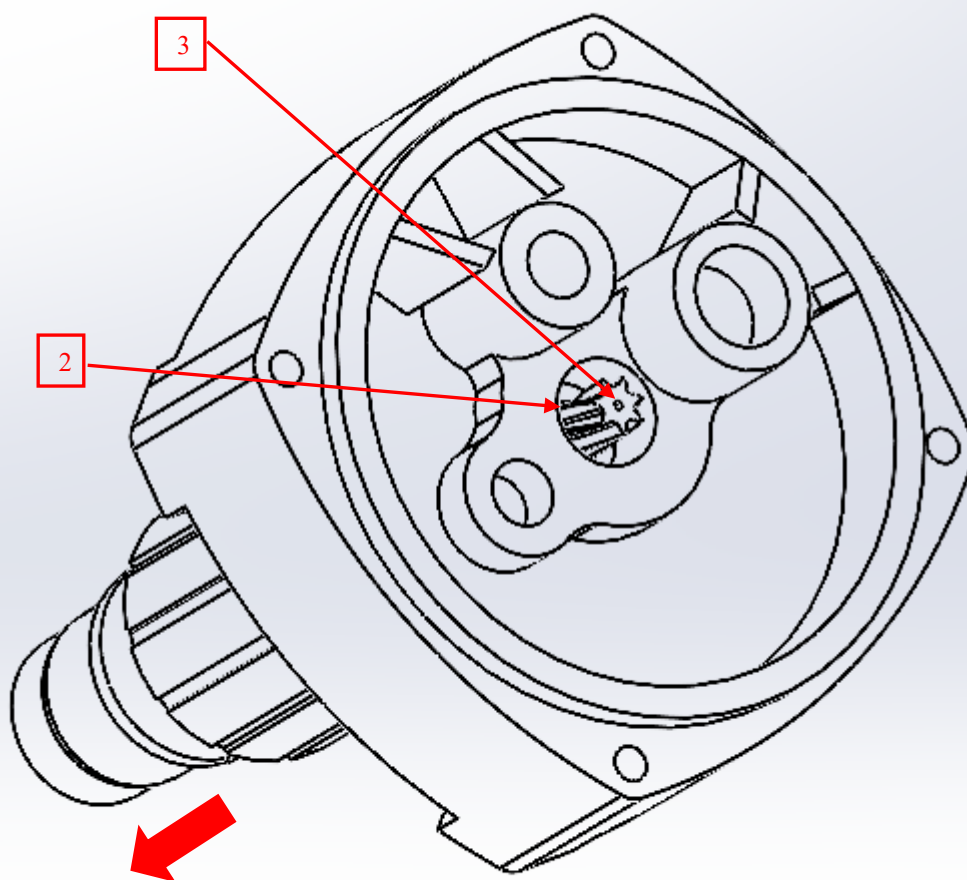


Figure 5.16

N.B. When reassembling, pay attention to the magnet ring when inserting the electrical part (the plastic part.

5.6 Removal of the friction

- 5.6.1 Remove the sealing plug for the oil chamber in the direction of the arrow as shown in the figure 5.17;

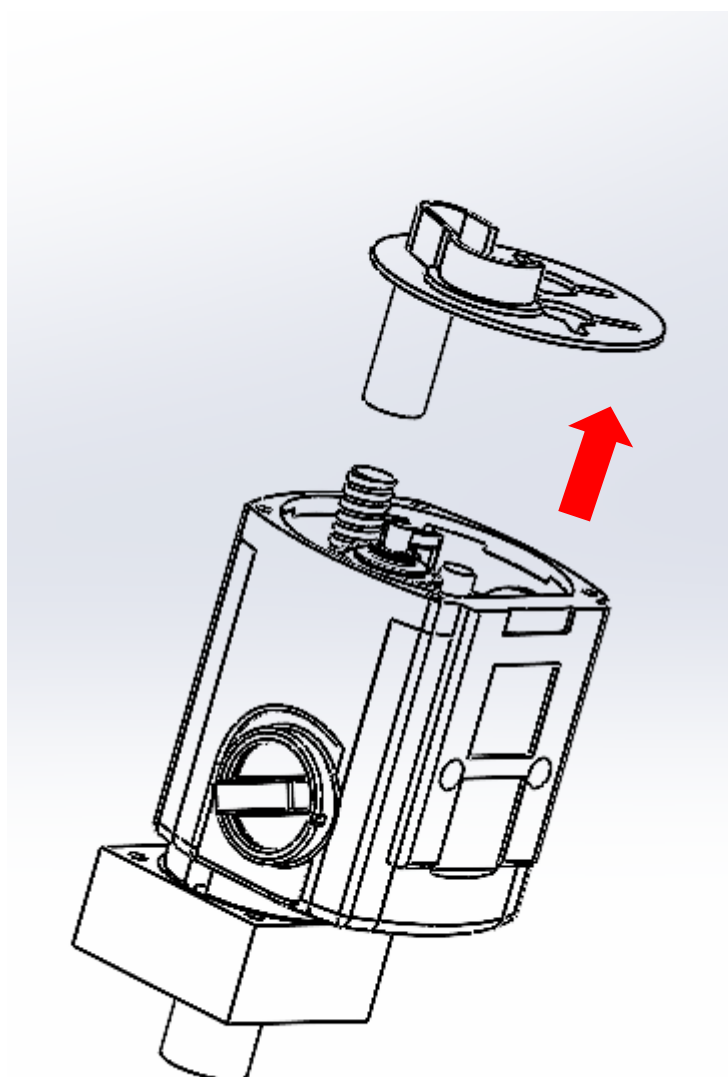


Figure 5.17

5.6.2 Draining the oil;

5.6.3 Using 2 levers, remove the part (mechanical clutch) in the direction of the red arrow (see figure 5.18) and if there is grease, clean it up;

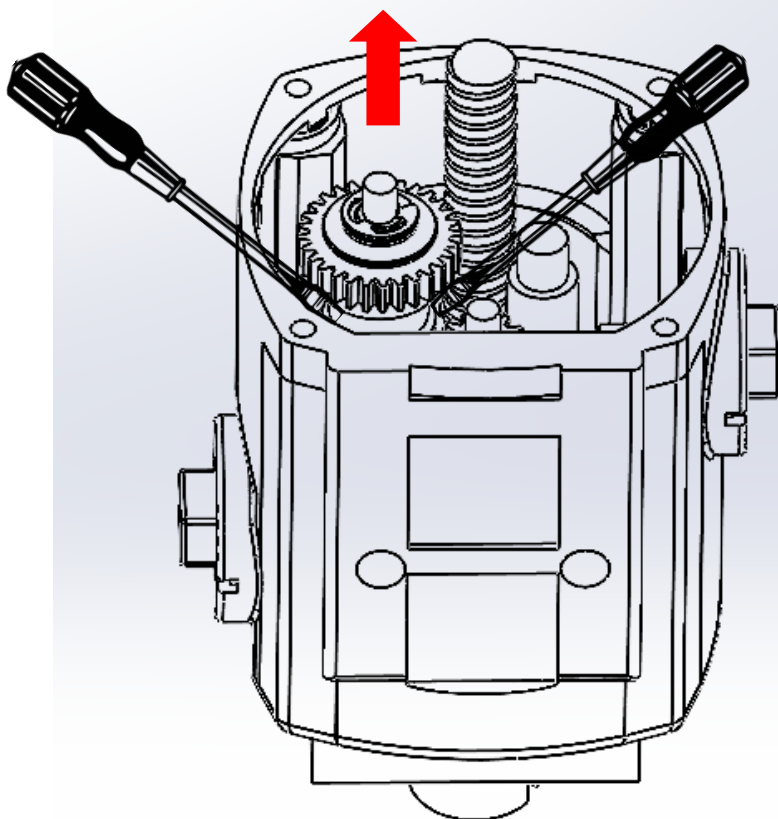


Figure 5.18

5.6.4 When the clutch is pulled, you will be shown in this configuration (Fig.5.19);

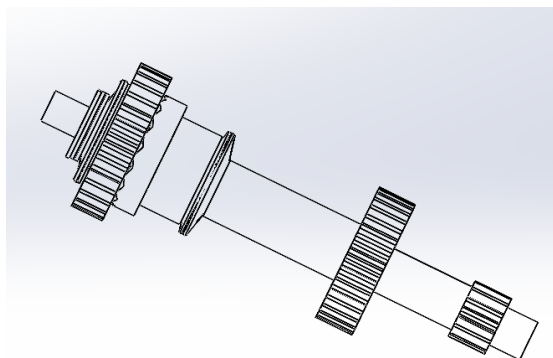


Figure 5.19

5.6.5 Proceed with the disassembly of the clutch following the various steps and as shown in figure 5.20:

- a) Remove the seeger ring (COT91039) - figure 5.20 – position 1;
- b) Remove the washer (COT91041) – figure 5.20 – position 2;
- c) Remove the washer (COT91040) – figure 5.20 – position 3;
- d) Remove the washer (COT91042) – figure 5.20 – position 4;
- e) Remove the two cup springs (COT90573) – figure 5.20 – position 5;
- f) Remove the clutch gear (COT91044) – figure 5.20 – position 6;
- g) Remove the second clutch gear (COT91043) – figure 5.20 – position 7;
- h) Remove the keyway (COT90051) – figure 5.20 – position 8;
- i) Remove the two cup springs (COT90573) – figure 5.20 – position 9;
- j) The central clutch gear (COT91045) remains – figure 5.20 – position 10.

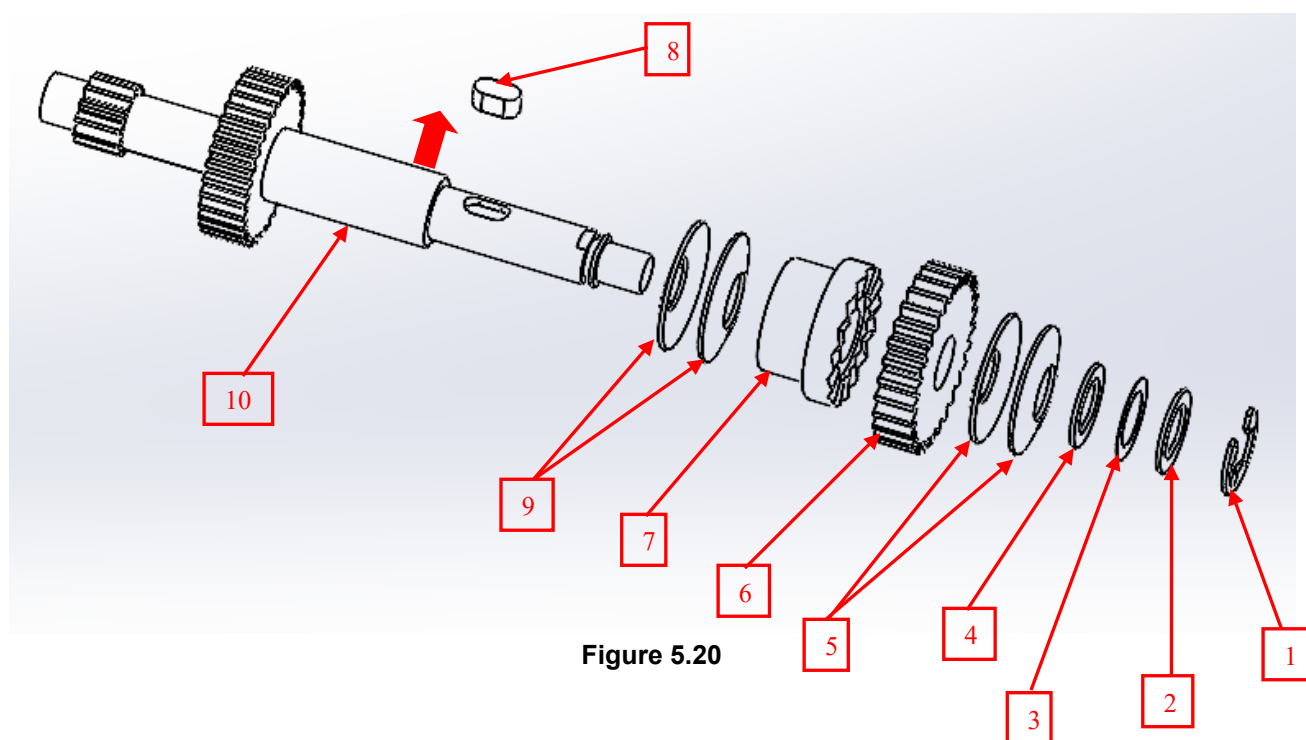


Figure 5.20

5.6.6 Once the clutch has been disassembled, locate the damaged part, replace it and reassemble, following the steps in 5.6.5 backwards and refill oil if necessary.

5.7 Removal of the gearbox lever

- 5.7.1 With the aid of a screwdriver remove the screws and washers figure 5.18 – position 1 – position 2, proceed to remove the knobs (COE00889) – position 3 – figure 5.18, continue by removing the seeger rings in position 4 – figure 5.18 and then remove the knobs as in figure 5.18 – position 5;

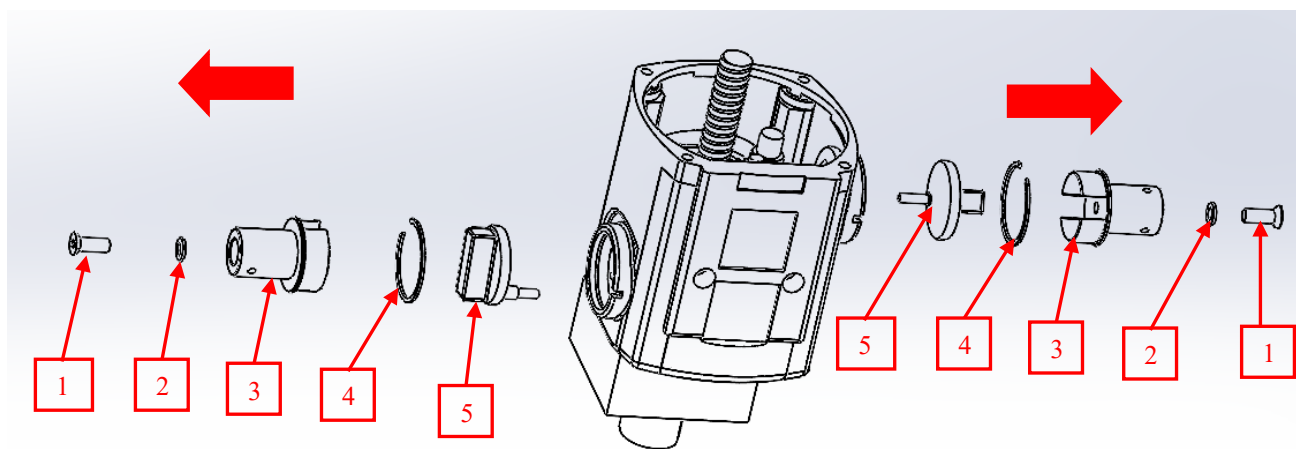


Figure 5.18

- 5.7.2 Replace the knobs, taking care to fit them into the slots between the gears shown in the circles in figure 5.22;

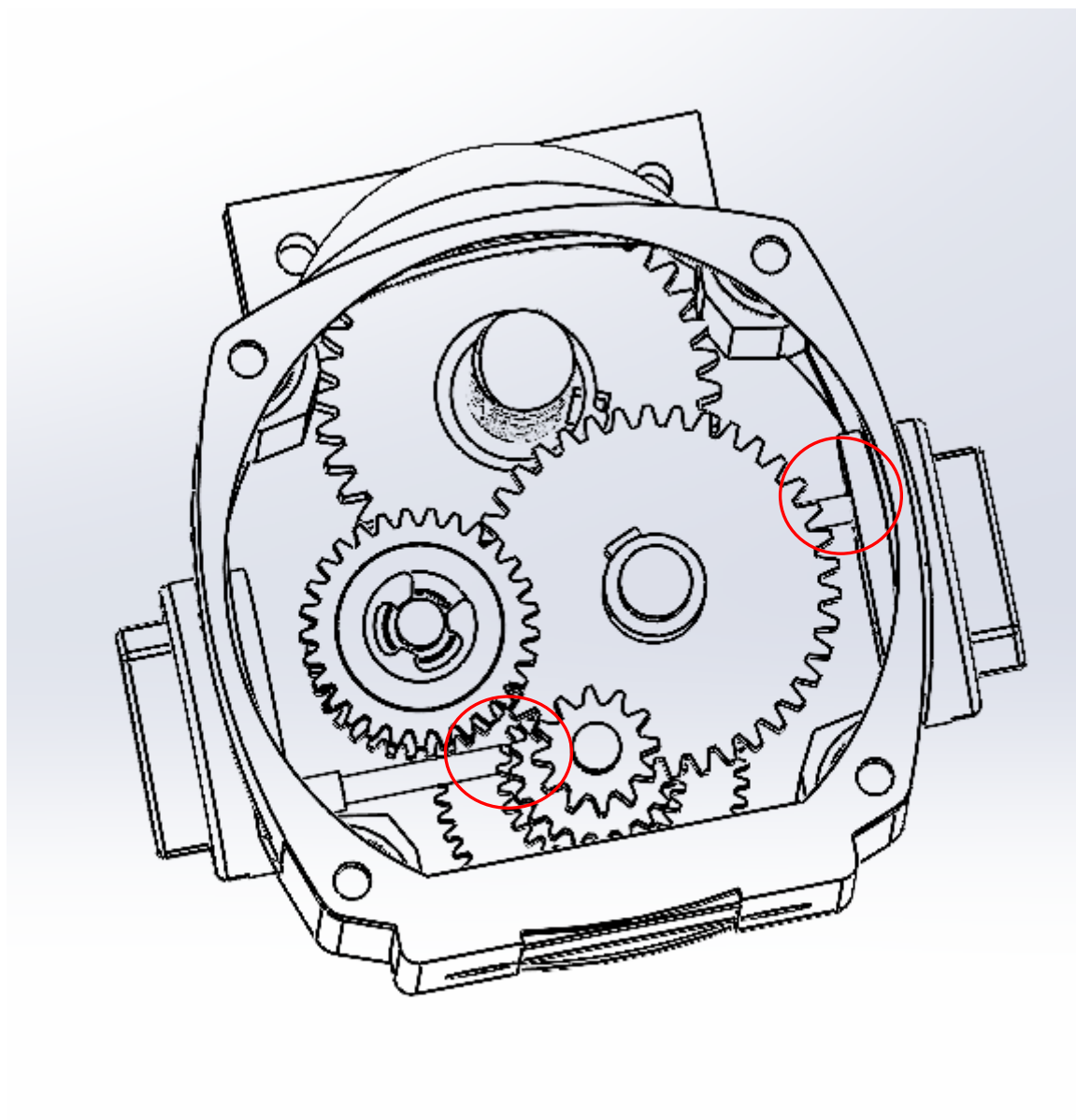


Figure 5.22

- 5.7.3 To reassemble, proceed in the following order:
- a) Insert the external gear knobs;
 - b) Insert the knob COE00899;
 - c) Insert the mechanical clutch into the appropriate housing;
 - d) Refill oil:
 - Quantity: ½ litre;
 - Characteristics: 80W90
 - e) Close everything with the part on which the armature is mounted and tighten.



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