MAINTENANCE MANUAL

SERIE SUPERCOMBINATA®

EASY COMPACT

elsa®

Super **Xtrafactory** Devices

Summary

2 EASY COMPACT

2.1 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.

2.1.1 Ensure that the entire unit consisting of the control panel and the boring machine is disconnected from the power supply (Disconnect power plug);

2.1.2 Proceed to the removal of the housing of the boring machine, as shown in the following figures.

N.B. For all models made before <u>09/03/2021,</u> first remove the handwheel as described in the attachment.

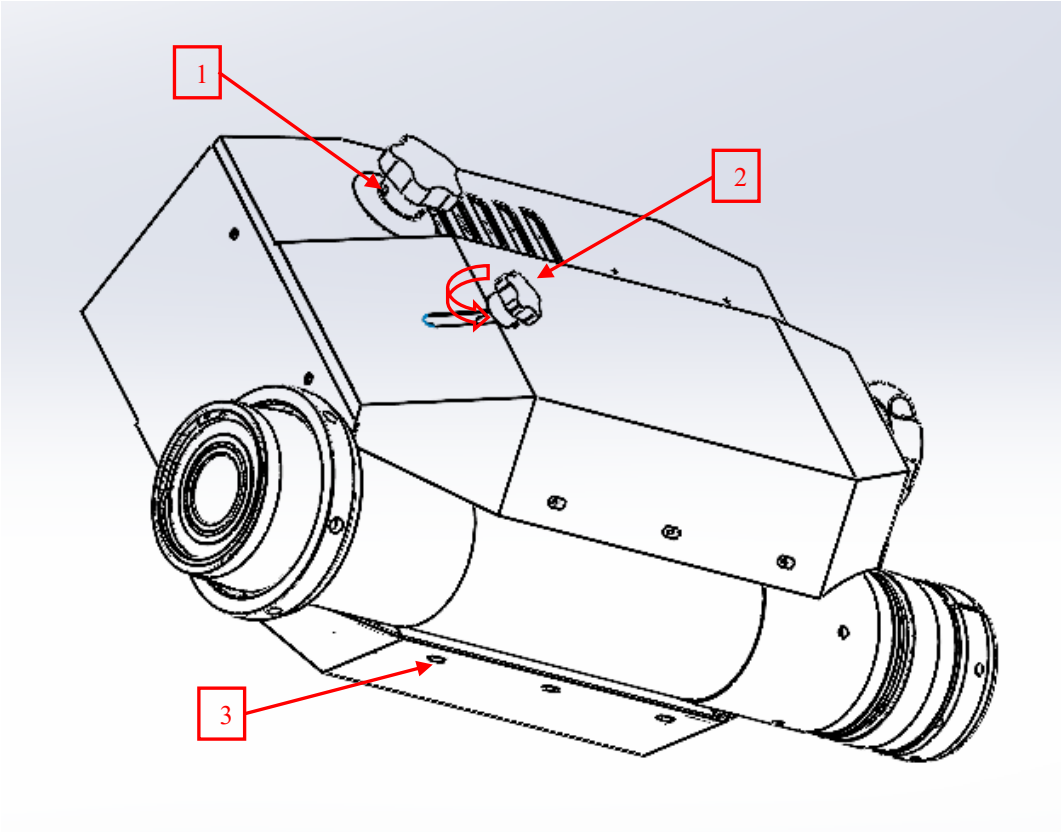


Figure 2.1

2.1.3 Unscrew the two locking grub screws shown in figure 2.1 – position 1 and pull out the gear lever;

2.1.4 Unscrew the welding engagement lever knob shown in figure 2.1 – position 2;

2.1.5 Unscrew the lower housing fixing screws, as shown in figure 2.1 – position 3;

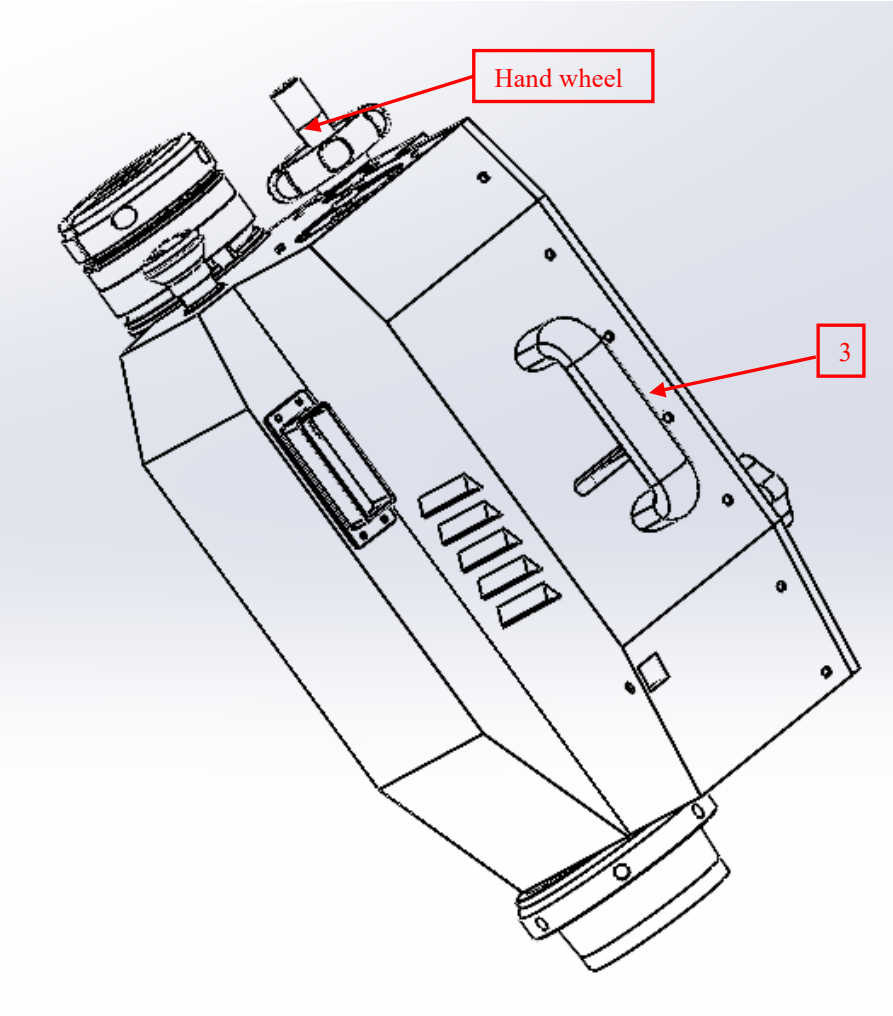


Figure 2.2

2.1.6 Unscrew the screws securing the housing at the top, as shown in figure 2.2 – position 3;

2.1.7 Unscrew the four screws securing the socket positioned at the side, as shown in figure 2.3 – position 4.

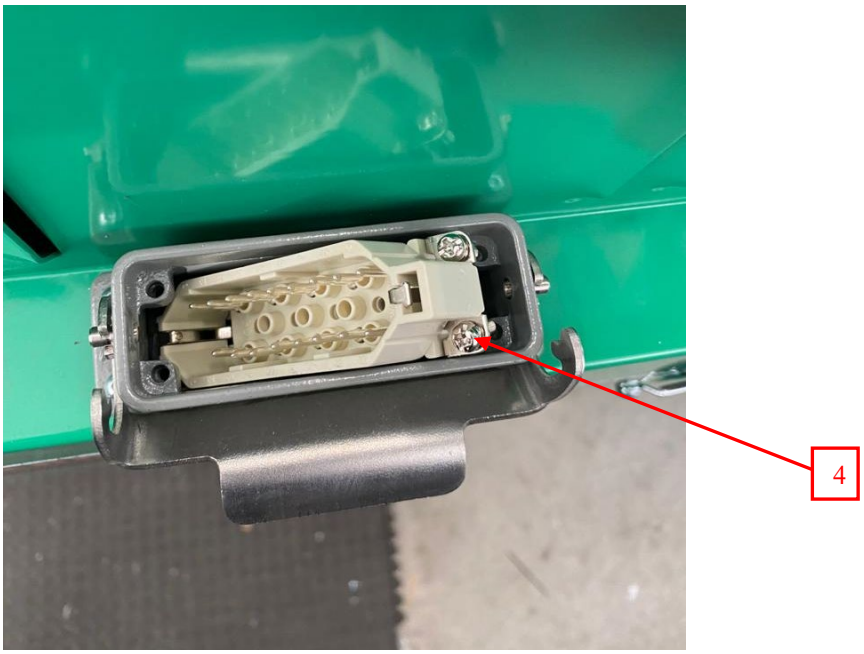


Figure 2.3

2.1.8 Remove the housing by passing the socket through the hole in the housing as shown in figure 2.3.

2.1.9 Proceed to remove the electrical connection with the emergency stop button, as shown in figure 2.4.

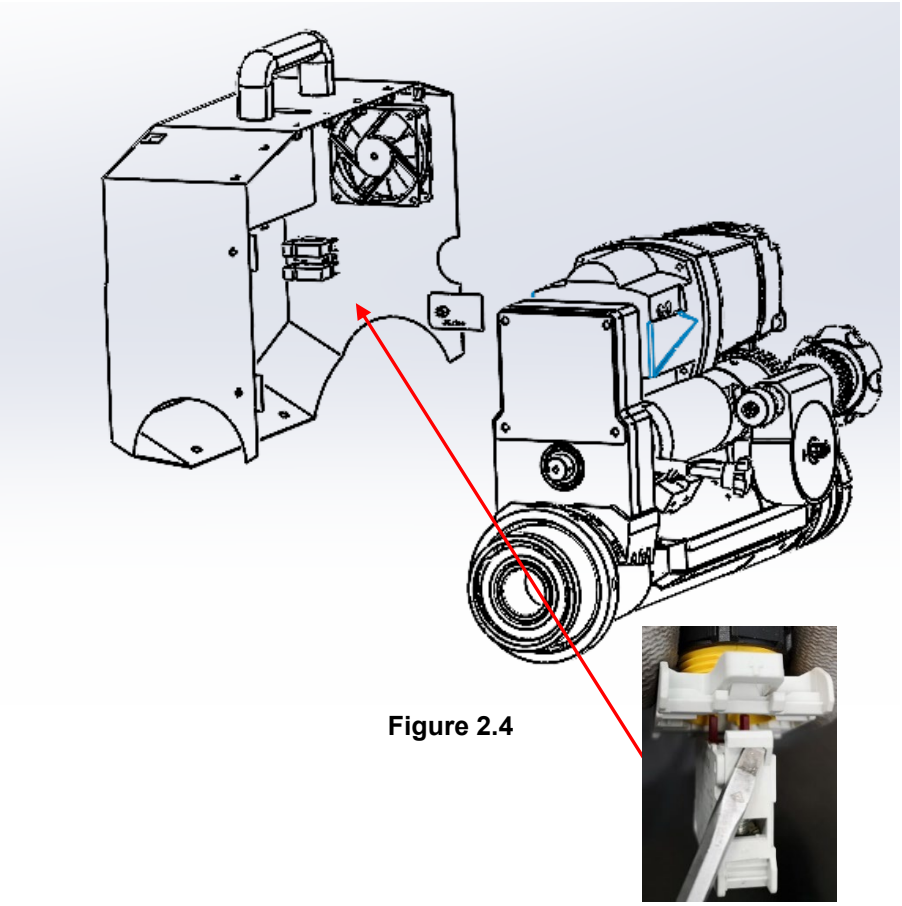


Figure 2.4

2.1.10 Proceed to disconnect the cables marked with numbers 14–15 on the terminal board, (see figure 2.5).

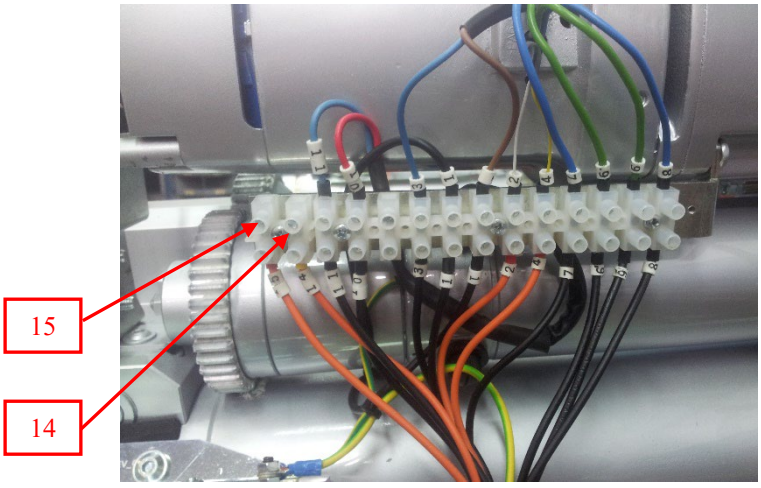


Figure 2.5

2.2 Removal of the PC Board

2.2.1 Proceed to remove the motor protection cover, unscrewing the four screws shown in figure 2.6 – position 1 and the 2 anchor screws as shown in figure 2.6 – position 2;

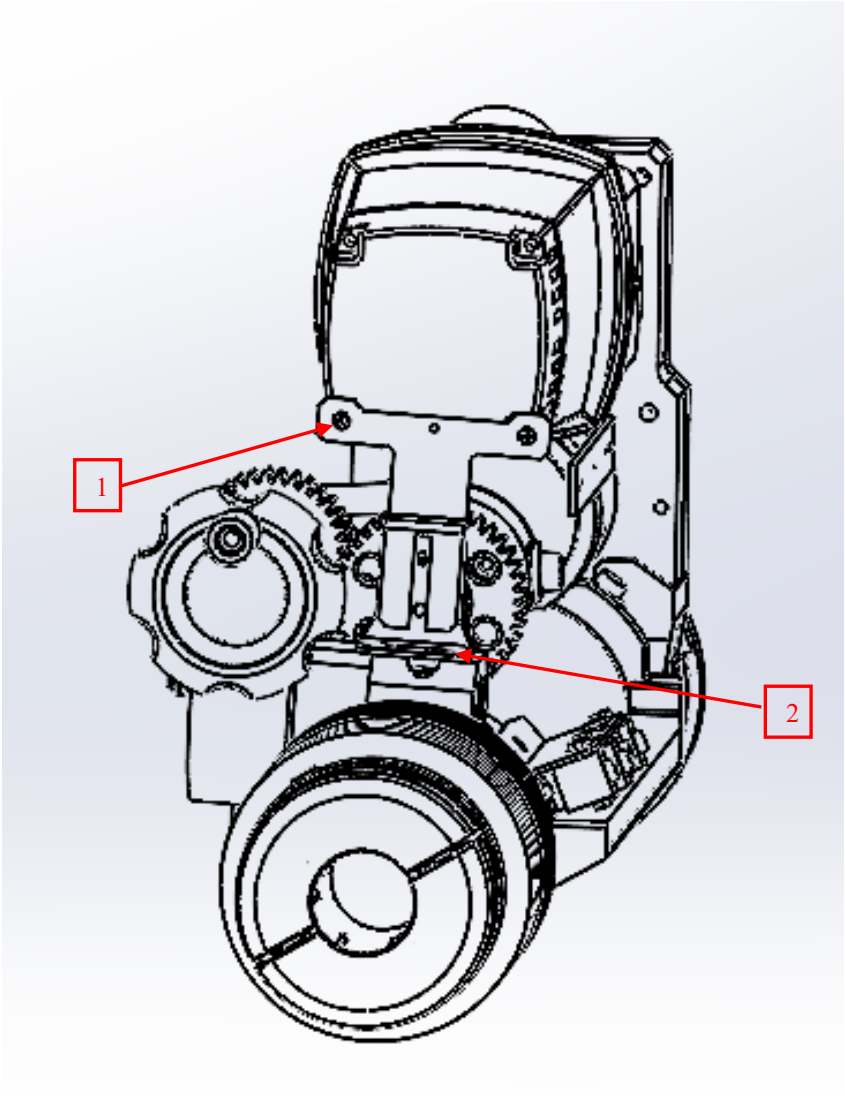


Figure 2.6

2.2.2 Proceed to disconnect the cables from the board, taking care, during reassembly, to restore the connections as shown in figure 2.7;

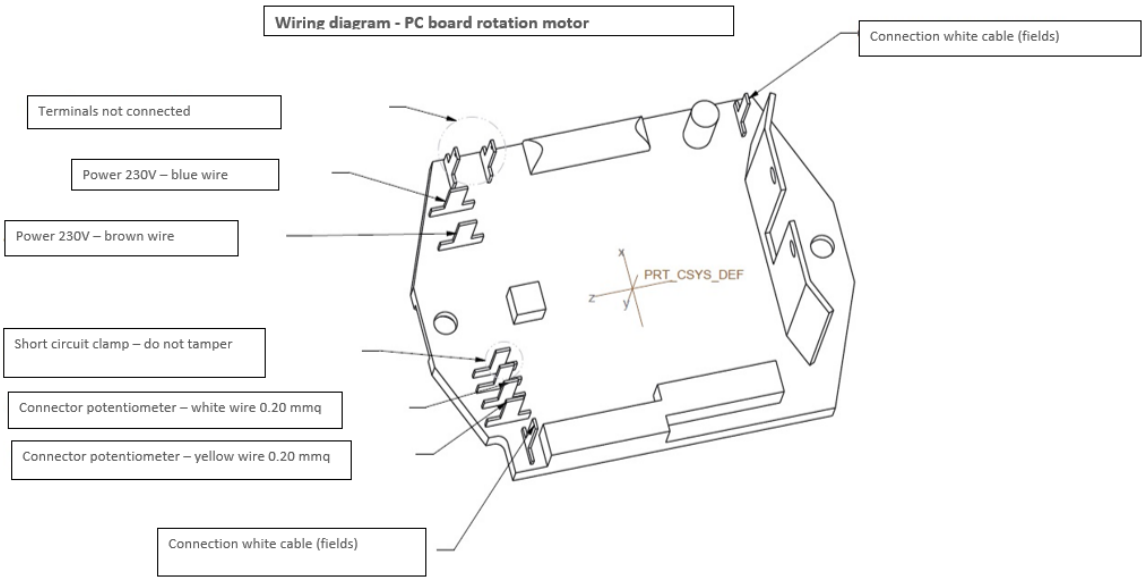


Figure 2.7

2.2.3 Unscrew the two screws as shown in figure 2.8 – position 3 and pull the motor board in the direction of the arrow (Fig. 2.8);

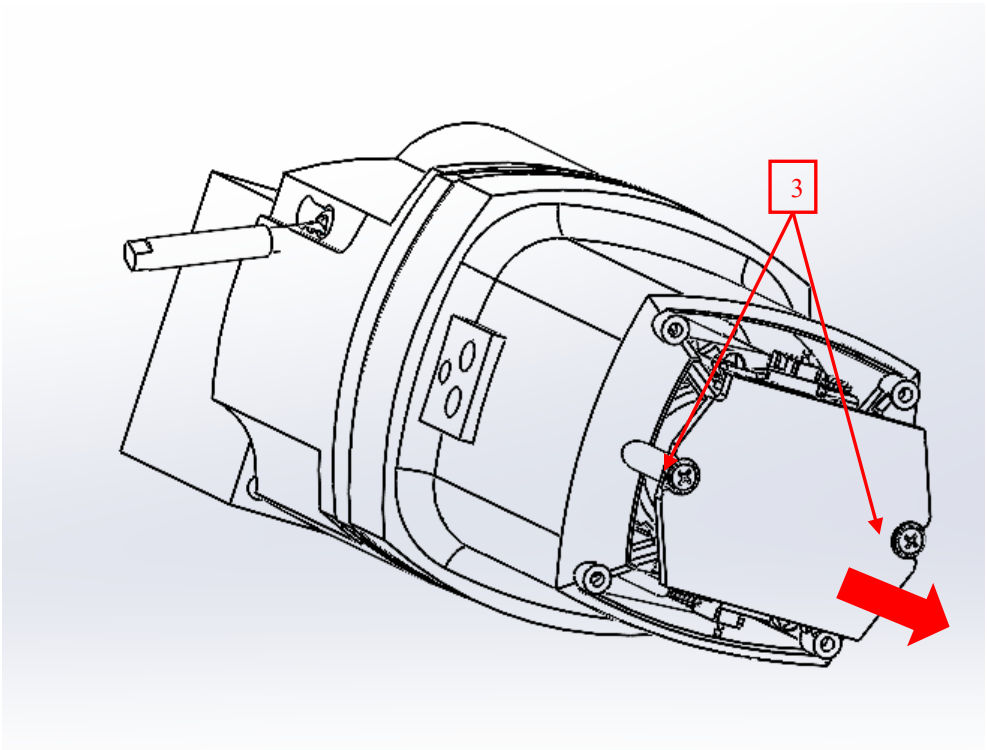


Figure 2.8

2.3 Removal of the brushes

2.3.1 Using a screwdriver, first unhook the spring in figure 2.9 – position 1, loosen the screw in position 2 – figure 2.9 and remove the brush in position 3 – figure 2.9;

2.3.2 To replace the other brush, repeat the operations described in point 2.3.1.

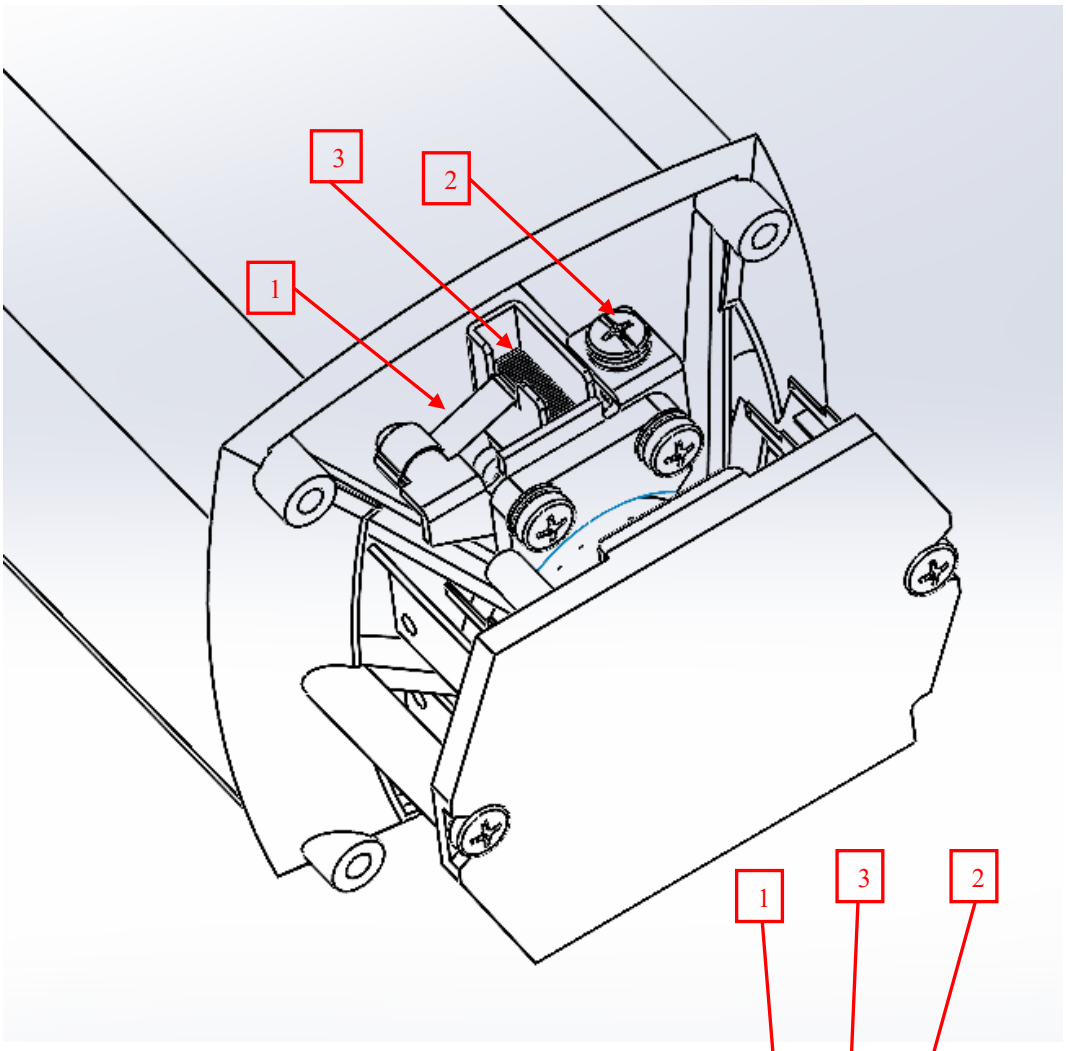
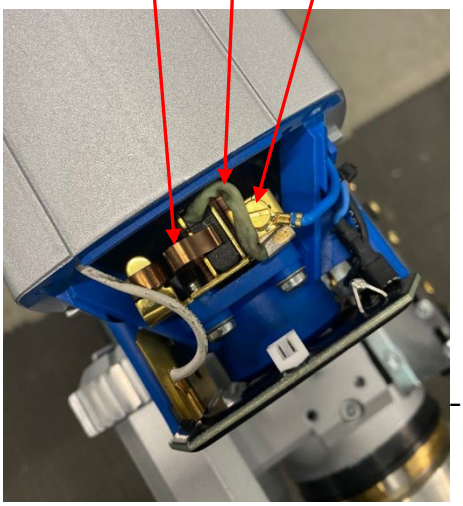


Figure 2.9



2.4 Removal of the brush holders

2.4.1 Proceed to disconnect the cables from the board;

2.4.2 Loosen the two screws as shown in figure 2.10 – position 1, unhook the springs in position 2 – figure 2.10 – with the help of a screwdriver and unscrew the four screws in position 3 – figure 2.10;

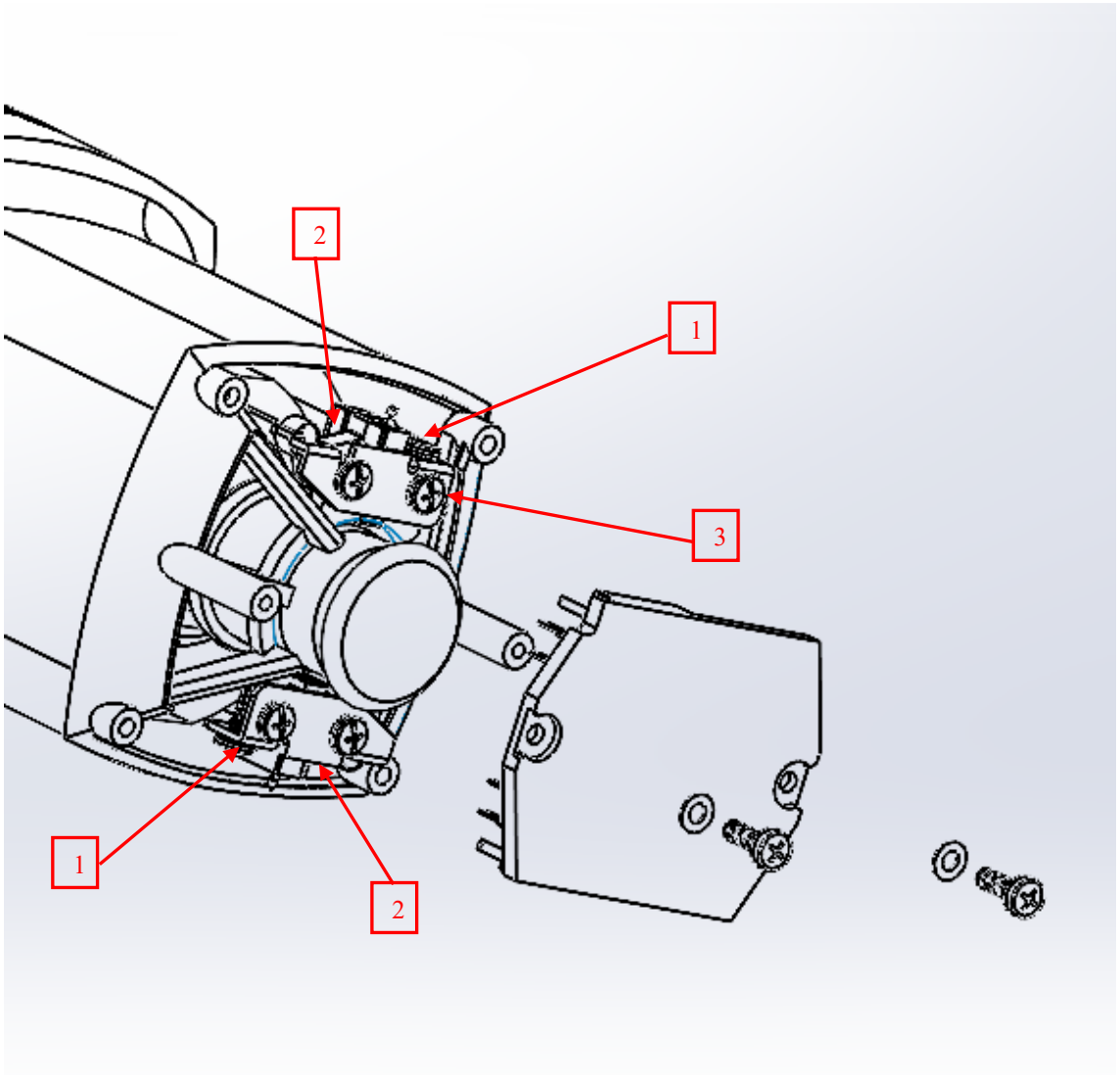


Figure 2.10

2.4.3 Proceed to remove the brush holders as in figure 2.11.

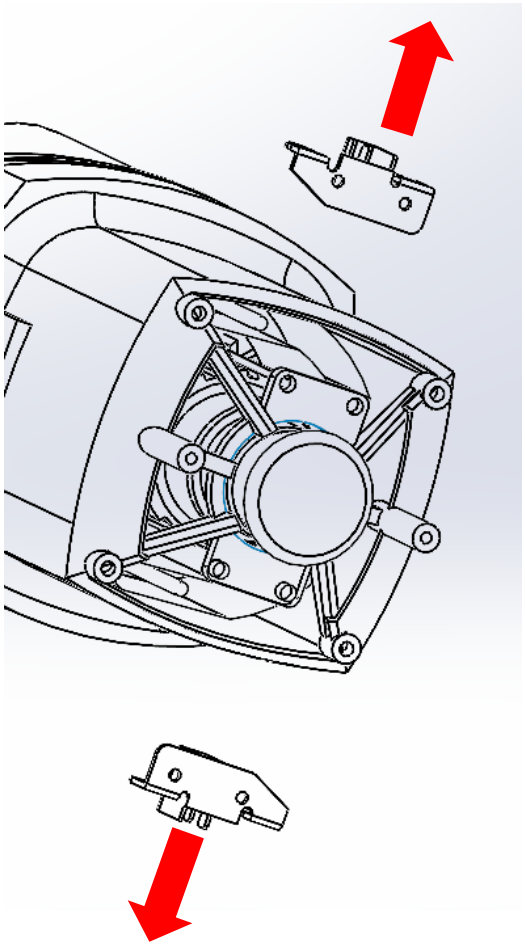


Figure 2.11

2.5 Removal of the armature

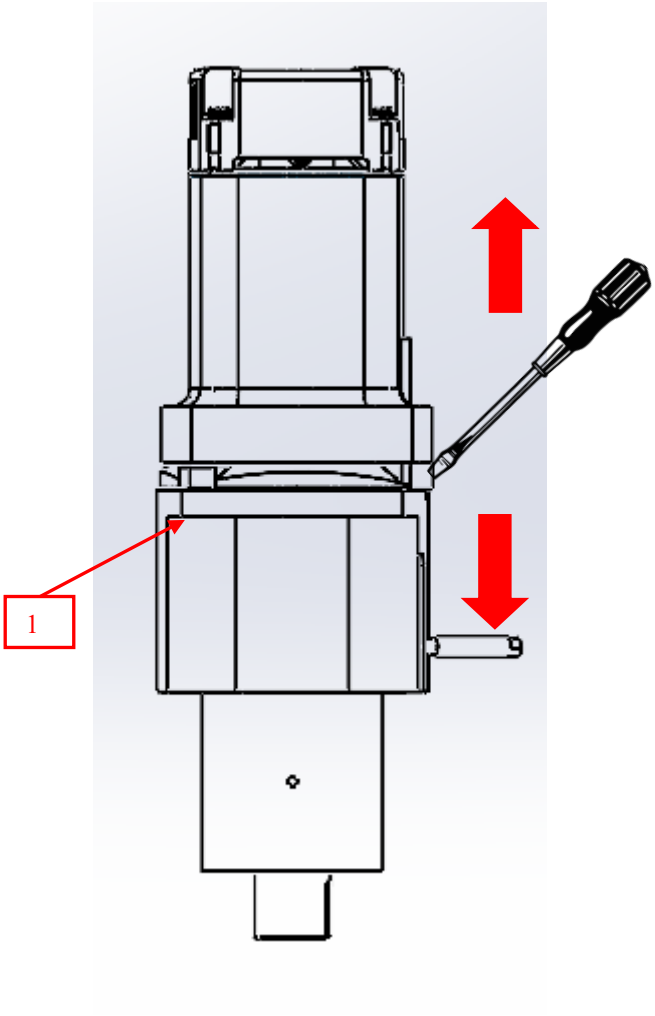


Figure 2.12

2.5.1 Place the motor in a vertical position and then unscrew the screws as shown in figure 2.12 – position 1;

2.5.2 Use a screwdriver to pry the two parts apart as shown in figure 2.12;

2.5.3 Once the two parts are separated, place the gearbox part vertically as in figure 2.13, to prevent grease from escaping;

2.5.4 Using a screwdriver, pry and remove the piece in the direction of the red arrow (see figure 2.13);

2.5.5 Once the armature has been pulled, pay attention to the magnetic ring, highlighted in the circle in figure 2.13;

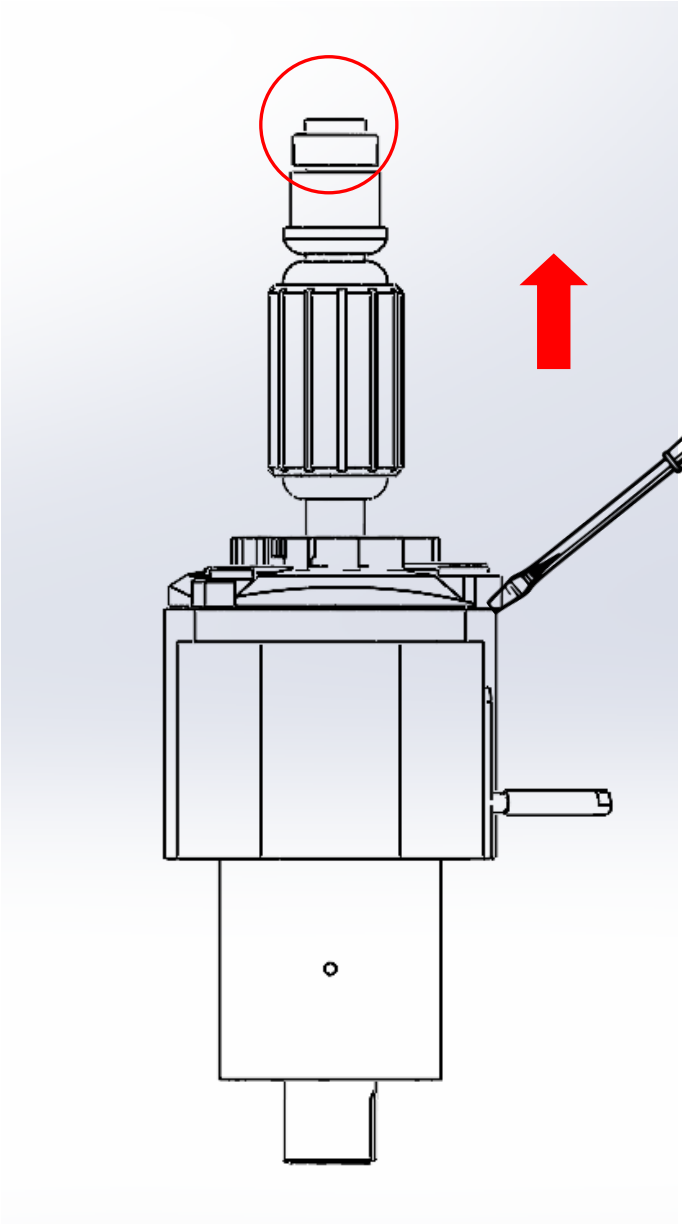


Figure 2.13

2.5.6 Remove the seeger ring as in figure 2.14 – position 2;
2.5.7 Gently tap on position 3 (figure 2.14) and proceed with the removal of the armature by pulling in the direction of the arrow.

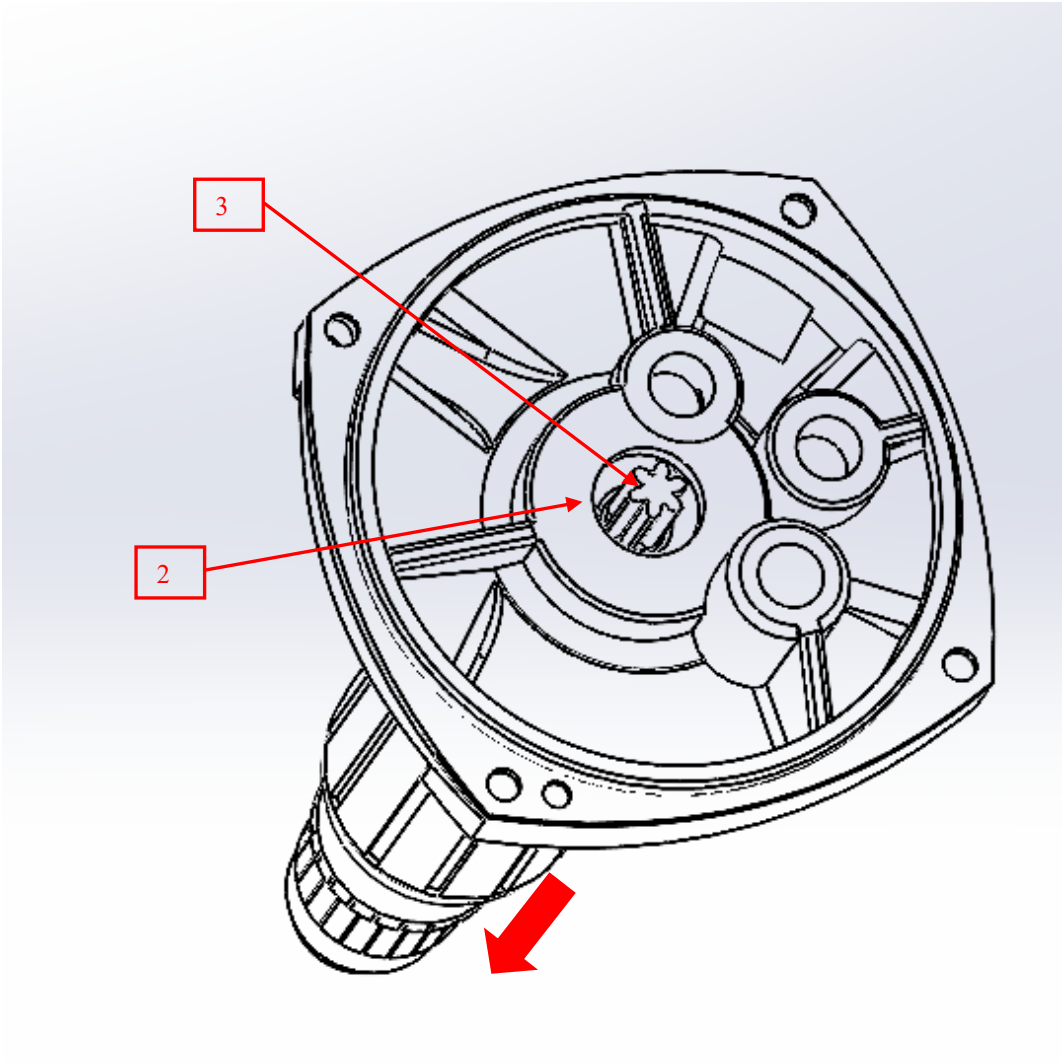


Figure 2.14

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

2.6 Removal of the friction

2.6.1 Using 2 levers, remove the part (mechanical clutch) in the direction of the red arrow (see figure 2.15) and if there is grease, clean it up;

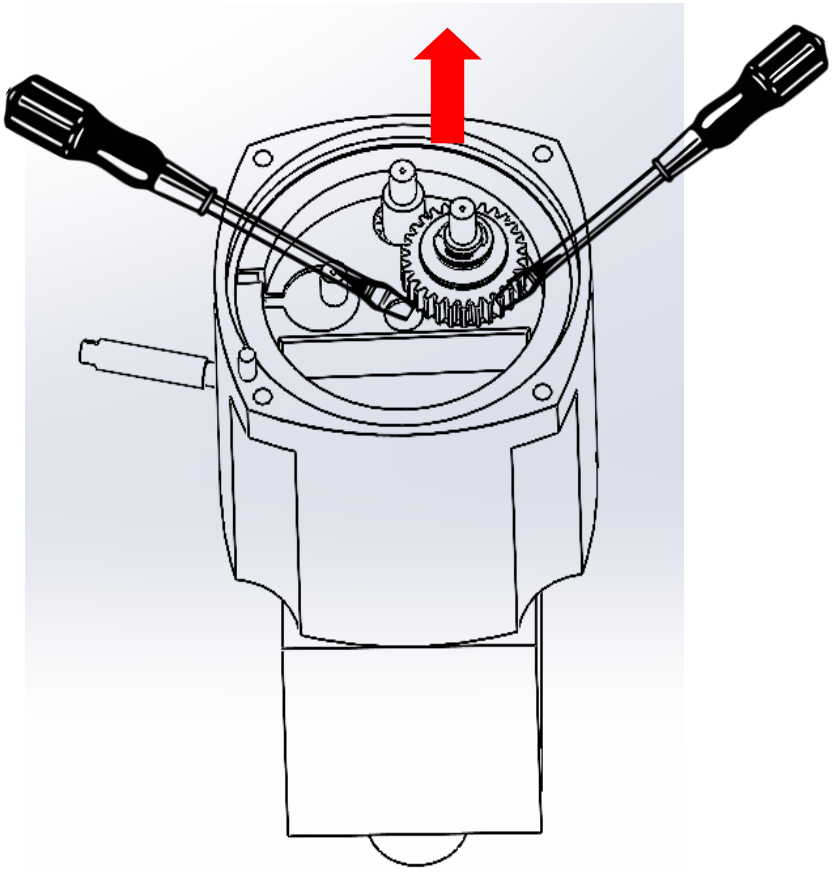


Figure 2.15

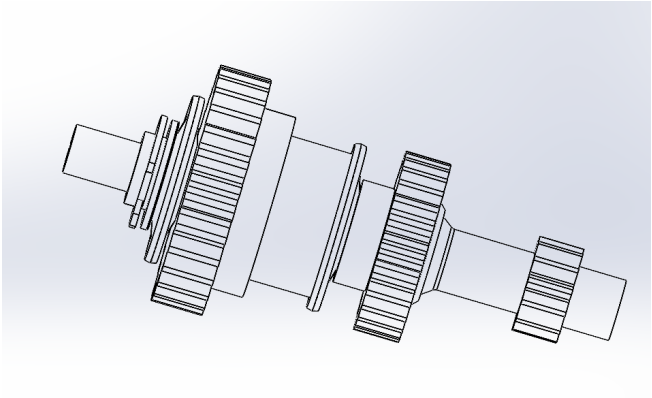


Figure 2.16

2.6.2 When the clutch is pulled, you will be shown in this configuration (Fig.2.16);

2.6.3 Proceed with the disassembly of the clutch following the various steps and as shown in figure 2.17:

a) Remove the seeger ring (COT91056) – figure 2.17 – position 1;
b) Remove the thrust washer (COT91057) – figure 2.17 – position 2;
c) Remove the adjustment disc (COT90057) – figure 2.17 – position 3;
d) Remove the two cup springs (COT90573) – figure 2.17 – position 4;
e) Remove the toothed wheel (COT90055) – figure 2.17 – position 5;
f) Remove the semi–coupling (COT90052) – figure 2.17 – position 6;
g) Remove the keyway (COT90051) – figure 2.17 – position 7;
h) Remove the two cup springs (COT90573) – figure 2.17 – position 8;
i) The countershaft (COT90048) remains – figure 2.17 – position 9.

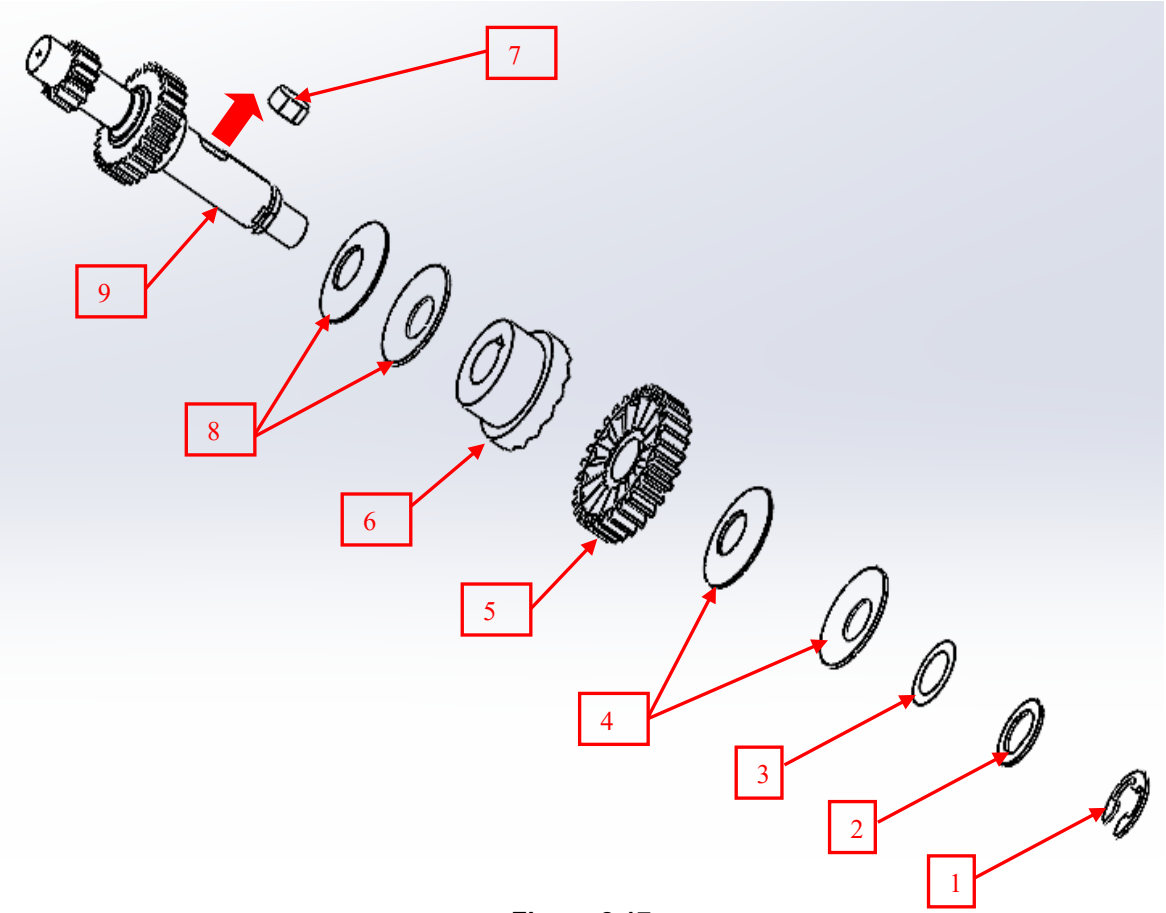


Figure 2.17

2.6.4 Once the clutch has been disassembled, locate the damaged part, replace it and reassemble, following the steps in 2.6.3 backwards.

2.7 Removal of the gearbox lever

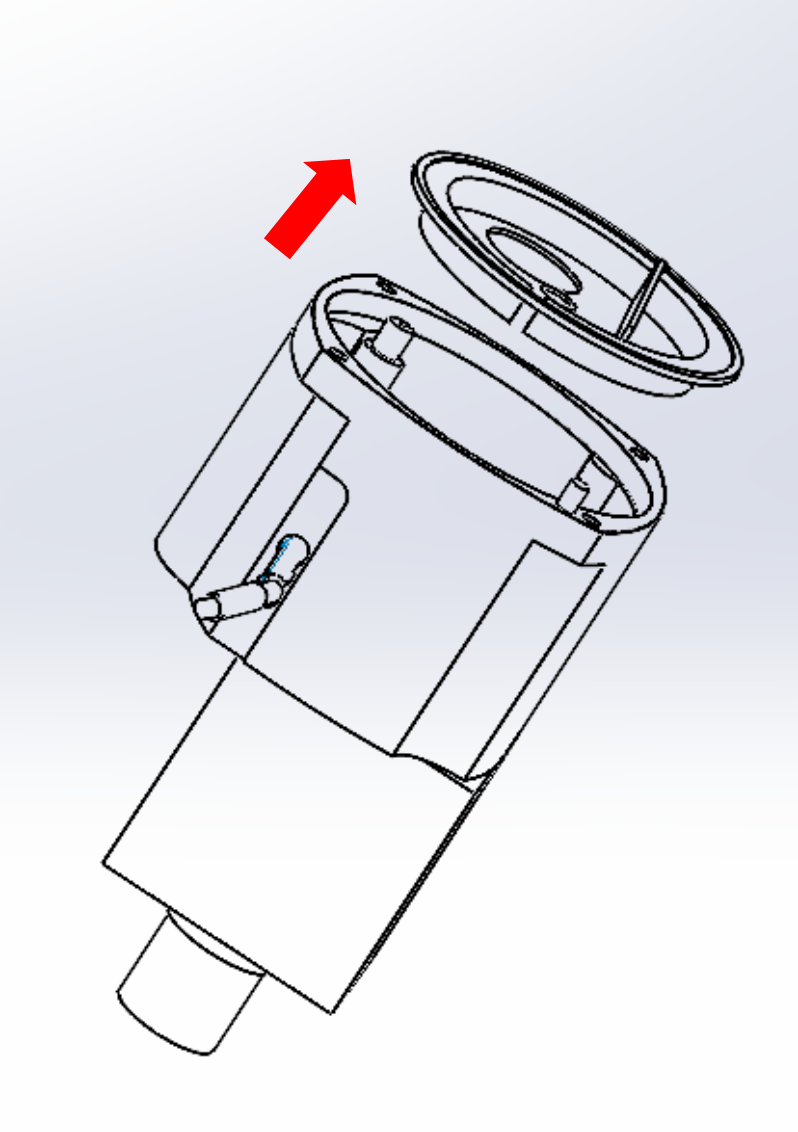


Figure 2.18

2.7.1 Remove the sealing lip of the grease chamber (see figure 2.18);

2.7.2 Release the return spring of the outer gear lever as shown in figure 2.19;

Figure 2.19

2.7.3 Unscrew and remove the outer gear lever as in figure 2.20;

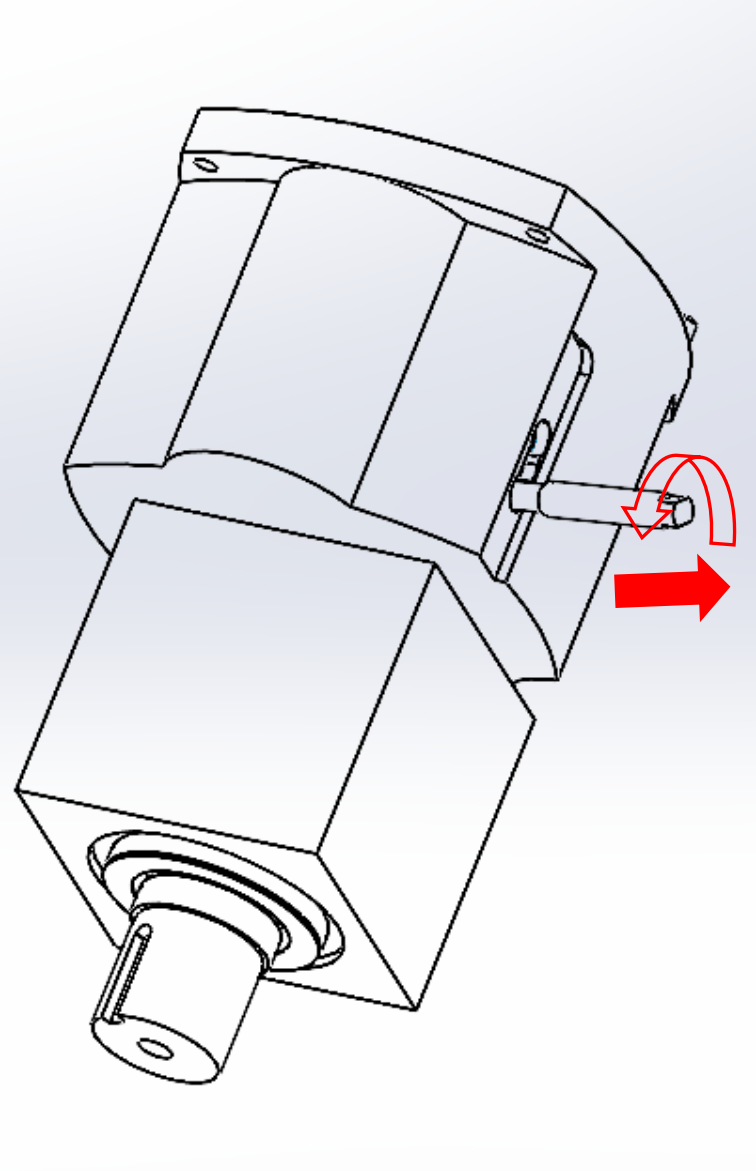


Figure 2.20

2.7.4 Remove the countershaft and washer in the direction of the arrow (see figure 2.21);

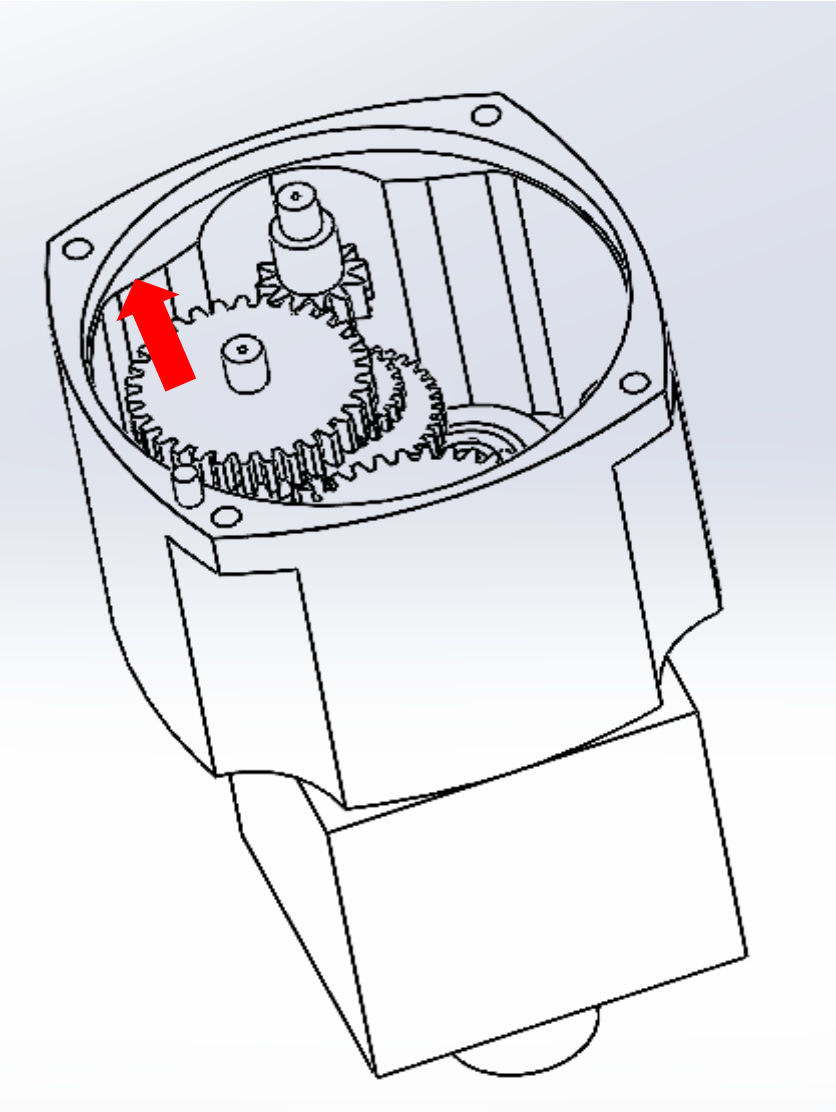


Figure 2.21

2.7.5 Turn clockwise to extract the inner part of the lever with the help of pliers as in figure 2.22;

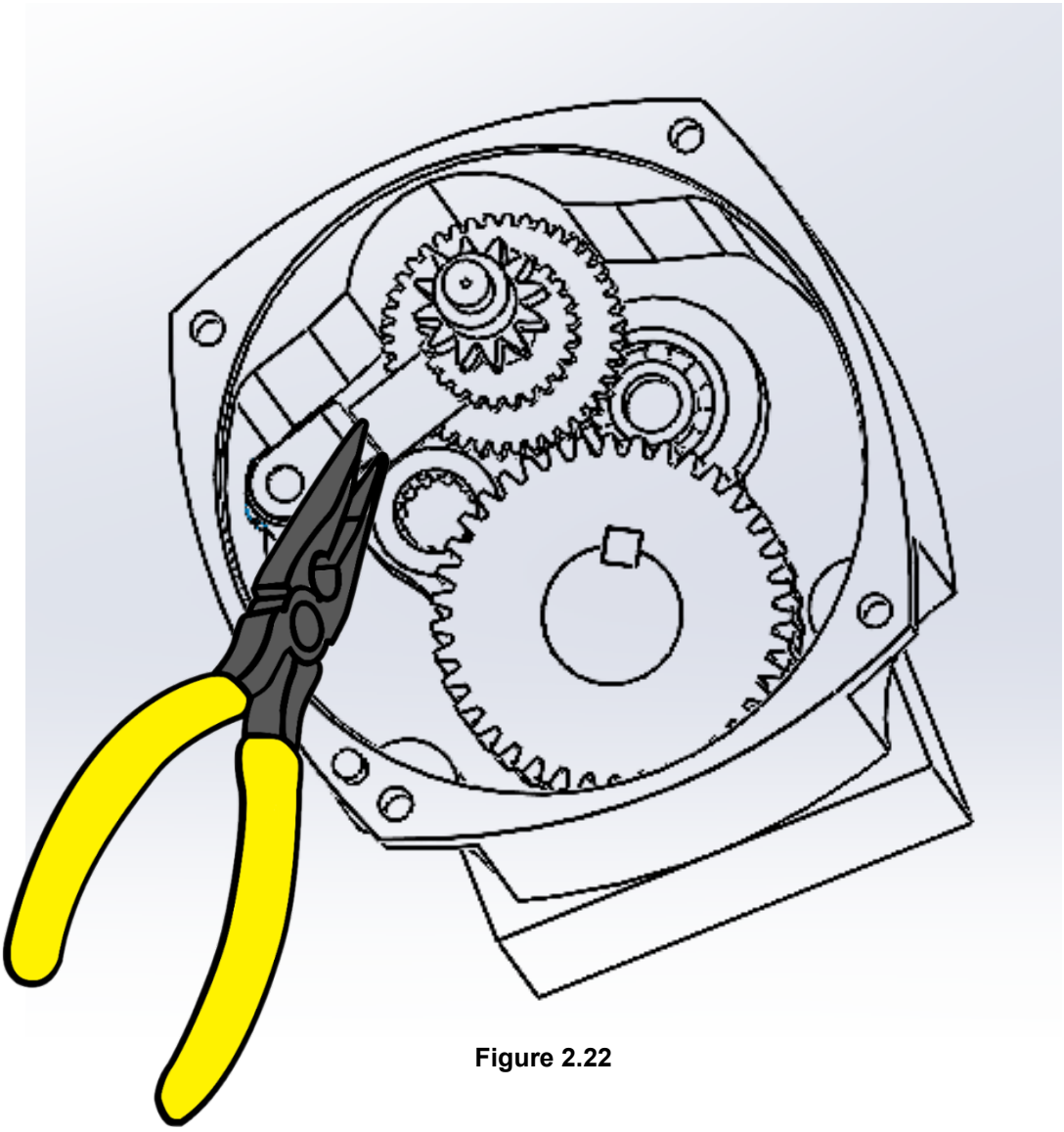


Figure 2.22

2.7.6 Replace the internal lever by turning it counter clockwise, taking care to fit it into the groove between the two gears shown in the circle in image 2.23;

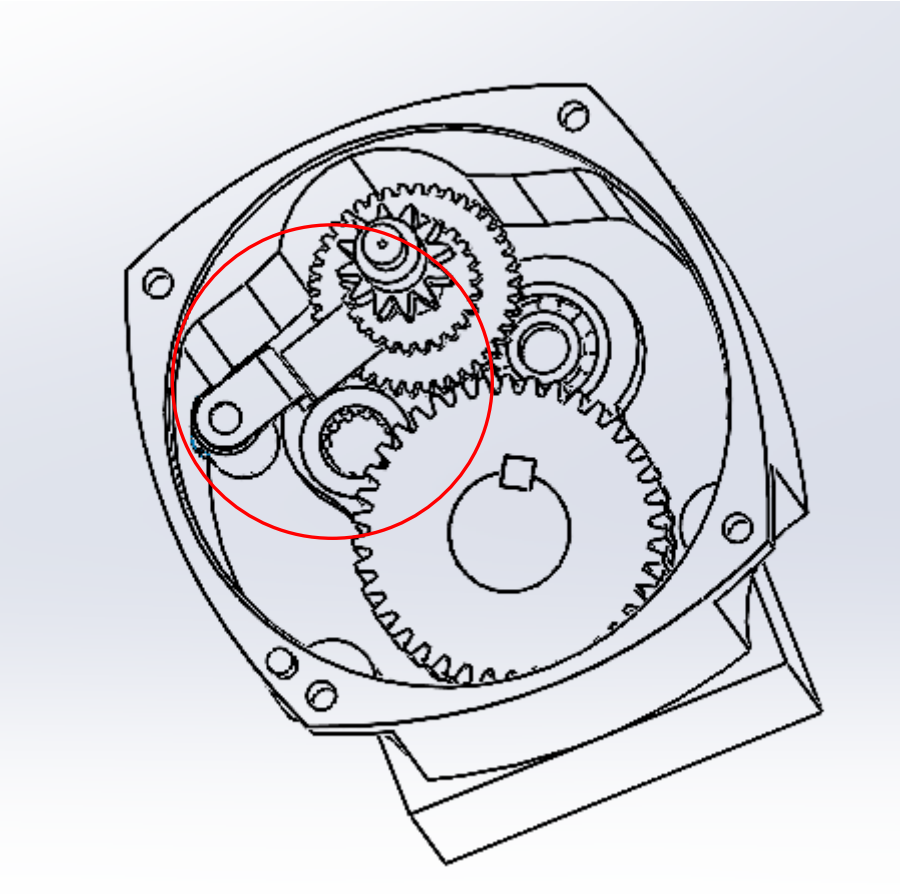


Figure 2.23

2.7.7 To reassemble, proceed in the following order:

a) Insert and screw the external gear lever;
b) Insert the countershaft with the washer into the housing;
c) Engage the return spring of the outer gear lever;
d) Insert the watertight closure for the grease chamber;
e) Insert the mechanical clutch into the appropriate housing;
f) Close everything with the part on which the armature is mounted and tighten.

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