





https://youtu.be/nDT0z50DDg4

REMOVING BEARING UNIT ZKLDF180

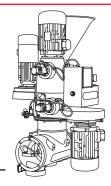


WARNING!

The operations described in this technical data sheet and those contained in the relative video tutorials which can be captured via QR CODE must only be performed by qualified technicians and only after having read the safety information contained in sections 2 and 6 of the Use and maintenance manual.

When in doubt, do not interpret! Instead directly contact the Colombini Srl technical assistance service at +39 011 8211407

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To remove/reinstall the bearing unit, the following are required:

- a) Allen wrenches 3 mm, 4 mm, 5 mm, 6 mm, 8 mm
- b) wrenches 8 mm, 13 mm and 27 mm
- c) supplied service wrench (code E0.0345).
- d) wrench 17 mm





WARNING

From the operator panel, move away the lower fine grinding discs to a value of 0.600 mm.



WARNING!

Disconnect the machine electric power supply.



WARNING!

Use cut-resistant gloves.



- Using a 5 mm Allen wrench, unscrew and remove the screw securing the sealing ring and remove it from its seat .
- Turn the extractor unit fully outwards.
- Using a 13 mm wrench, loosen the six blind nuts securing the duct.
- Turn the duct slightly to the right and withdraw it by pulling downwards.



- Insert the supplied service wrench (Code: E0.0345) into the arranged hole and turn the disc leftward all the way to the stop.
- Release the central nut using a 27 mm wrench.
- Turn the disc to the right and remove the service wrench.





• Unscrew the central nut while supporting and removing the assembly consisting of the lower fine grinding and rough grinding discs.



WARNING!

We recommend that a second person support the grinding discs throughout removal operations.



• Using a 5 mm Allen wrench, unscrew the six screws securing the upper fine grinding disc; then support the disc and withdraw it from its seat.



- Using a special wrench, insert two 5 mm Allen screws into two free threaded holes at the opposite sides of the bearing protection ring (if present). Do not tighten the screws, just insert them into the threaded holes.
- Unscrew the six Allen screws securing the ring in its seat. However, once freed from the securing screws, the ring will remain stuck in its position since interference with the machine body forces it into its seat. To unscrew, use a 5 mm Allen wrench.
- Slowly tighten the two inserted screws so as to progressively force the ring to detach from the body of the machine. Support the ring and withdraw it from its seat.



- Locate the Allen screws supporting the upper rough grinding disc.
- Using a 4 mm Allen wrench, unscrew the three screws supporting the upper rough grinding disc; then support the disc and withdraw it from its seat.



- Remove the blue nitrogen/air supply hose from the coupling on the pressure switch on the side of the machine body. This is done using a wrench.
- Unscrew and remove the coil controlling the pressure switch.
- Using a Phillips screwdriver, unscrew the IP valve supply connector (if present).
- Unscrew the screw connector on the front thermocouple located beside the pressure switch.
- Using a 13 mm wrench, unscrew the nut locking the probe in place, remove it from its threaded seat and gently pull the probe out of its housing on the side.
- Using a wrench, remove the lubrication feed hose from its quick coupling on the side of the machine body.
- Using a 17 mm wrench, unscrew the greasing nozzle and remove it from its seat. Pull it out carefully.



WARNING!

The threaded hole on the nozzle and body of the machine have coloured marks indicating their position where they line up; identify these marks as these will be useful when repositioning the parts during reassembly.

- Using a 13 mm wrench, unscrew the nut locking the second thermocouple probe in place beside the greasing nozzle.
- Carefully withdraw the probe.
- Remove the cover for the upper fine grinding motor belt. Using an 8 mm wrench, unscrew and remove the three screws
- Using a 4 mm Allen wrench, unscrew and remove the three screws securing the gear wheel guard disc. Remove the guard disc.



• Using a 6 mm Allen wrench, loosen the four Allen screws securing the motor support to the timing belt frame.



- The position of the motor support vs. the timing belt frame is fixed by the locking position of a worm screw located under the frame. Using a 13 mm wrench, loosen the worm screw locking nut and loosen the two securing nuts that prevent the screw from moving longitudinally in its seat.
- Push the motor block towards the body of the machine, loosening the timing belt tensioned on the gear wheel inside the frame just enough so that it acquires some play.



WARNING!

The motor weighs approximately 60 kg. Be careful when handling it.

- Using a 5 mm Allen wrench, loosen the six Allen screws on the gear wheel and remove the gear wheel from its seat.
- Make certain that the transmission timing belt on the upper fine grinding discs is free to move in its seat.



- Using a 3 mm Allen wrench, unscrew the two screws securing the black gear wheel side ventilation grille. Remove the grille.
- Using a 3 mm Allen wrench, also unscrew the screws securing the second side ventilation grille and remove it.
- Using an 8 mm Allen wrench, unscrew the ten Allen screws securing bearing assembly ZKLDF180 to the machine body.



WARNING!

The grinding disc bearing assembly is heavy. Before unscrewing the screws, to ensure safe handling during removal, place a mobile support compliant with the standards under the assembly; to this purpose, we recommend using the blades of a forklift truck as this permits both vertical movement and general handling.

- Completely remove the Allen screws, making certain that the bearing assembly rests gently on the forklift truck blades
- Remove the assembly.

REINSTALLING THE BEARING ASSEMBLY





WARNING!

Make certain that the timing belt does not get pinched under the gear wheel but is, instead, arranged correctly around it

• Position bearing assembly ZKLDF180 in its housing inside the transmission frame and make certain that it is correctly positioned above the motor shaft and that the screw through-holes and threaded holes on the motor line up.



WARNING!

Be careful when inserting the assembly into its seat. There are two pins on the machine body. Locate the corresponding holes on the bearing assembly, i.e. those smaller than the ones for the ten securing screws.



- Using the forklift truck, position the bearing assembly under the body of the machine. Line up the pins with the holes identified on the disc.
- Lay out the belt in its place.



• Insert the assembly.



WARNING!

The correct position of the assembly in its seat is the one where the yellow mark on the side lines up with the mark on the threaded hole on the lubrication injector.

- Use an 8 mm Allen wrench to tighten the ten bearing assembly securing screws.
- Make certain that the screws are secured and then remove the forklift truck.
- Make certain that the belt is inserted in the gear wheel and can slide freely in its seat.



- Insert the second gear wheel.
- Position the gear wheel in its housing inside the transmission frame, making certain that it is correctly positioned above the motor shaft and that the screw through-holes and threaded holes on the motor line up.



WARNING!

Make certain that the timing belt does not get pinched under the gear wheel but is, instead, arranged correctly around it.

- Using a 5 mm Allen wrench, tighten the six Allen screws securing the gear wheel.
- Adjust the belt so that the belt teeth and gear wheel cogs are aligned correctly.



• Tighten the worm screw stud nut so that the entire motor block shifts in its seat, correctly tensioning the transmission timing belt.



WARNING!

While tensioning the belt, move the gear wheel to ensure that the transmission shows no slippage and that, on the contrary, the tension is not so high as to compromise correct transmission of the movement.

- Insert the gear wheel guard disc and secure it with its three Allen screws. Use a 4 mm Allen wrench.
- Reinstall the cover grille and secure it with its three screws.



- Replace the second nut and securing bolt on the worm screw. Tighten the securing bolt using a 13 mm wrench.
- Fully tighten the four Allen screws supporting the motor to the transmission frame.
- Replace the black belt ventilation grille in its seat and tighten its securing screws. Use a 3 mm Allen wrench.
- Using a 14 mm wrench, screw the pressure switch assembly back in its seat.
- Insert the IP electrical connector into its seat and tighten.
- Insert the power supply valve coil and tighten.
- Insert the blue nitrogen/air hose into the quick-coupling.
- Insert the probe into its seat and secure it using a 13 mm wrench to tighten the special nut.
- Screw the electrical connector back onto the probe.
- Tighten the six nuts on the screws located under the bearing assembly.
- Reposition and secure the second black belt ventilation grille, tightening its two screws using a 3 mm Allen wrench.
- Insert the second probe into its seat and secure it by tightening the locking nut.
- Screw the electrical connector back onto the second probe.
- Insert the lubrication injector into its seat, tightening it with a 17 mm wrench.
- Insert the lubrication hose into the quick coupling at the end of the hose.
- Replace the upper rough grinding disc in its seat and secure it with its own Allen screws.
- Position the cover disc (if present) in its seat in the lower portion of the machine.



WARNING!

Be careful when inserting the disc.

- Tighten the six 5 mm Allen screws securing the disc in its seat.
- The disc must be forced into its seat because the coupling involves some slight interference.





- Make certain that the seat of the upper fine grinding disc is clean. If necessary, use a soft cloth to remove any residues.
- Remove the upper fine grinding disc.
- Make certain that the surface of the disc is clean, using a soft cloth if necessary.
- Using a 5 mm Allen wrench, loosen the six Allen screws securing the upper fine grinding disc to its seat.



WARNING!

We recommend that a second person support the upper fine grinding disc throughout positioning and securing operations.





WARNING!

Pay attention to the toothed contour on the transmission shaft. When reinstalling the group composed of the lower rough grinding and fine grinding discs, make certain that the contour on the unit lines up with the contour on the shaft.

- Insert the lower rough grinding and fine grinding assembly.
- Tighten the central nut, holding the unit in the correct position.
- Insert the supplied service wrench (Code: E0.0345) into the arranged hole and turn the disc rightward all the way to the stop.
- Lock the central nut in place using a 27 mm wrench.
- Move the duct located above the extractor unit closer to the unit and fit it into the six supporting blind nuts.
- Turn the duct to the left as far as necessary so that it remains suspended on the blind nuts.
- Using a 13 mm wrench, tighten the six blind nuts and secure the duct onto the machinea.
- Turn the extractor unit inward all the way.
- Position the extractor unit sealing ring in its seat and lock it in place by tightening the special screw.

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