	TECHNICAL BULLETIN n°80	
	Subject: Spindle top bearing replacement	
	Date: 12/23	SERDI spindle type B (Ø80 mm)

This technical bulletin aims to assist customers and dealers at replacing the top spindle assembly when the upper bearing 020895 is worn and generates harsh noises when the spindle is running.

The described operation is only possible on SERDI spindles with a black radiator and a Ø80 mm spindle quill.

Needed tooling:

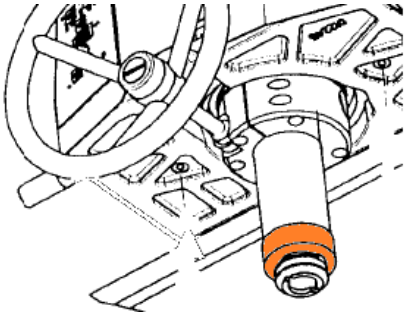
- **Set of allen keys**
- **Soldering iron**
- **Hydraulic press**
- **Bearing puller**
- **038443 spare parts kit**

1. Spindle stop removal

a - S3.0 or S4.0

Remove the screws holding the **spindle bottom cap** and remove this part.

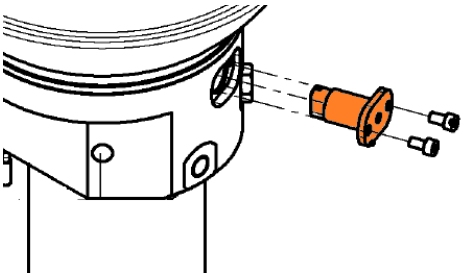
Now with the hand wheel, lift up the spindle until you reach the top position.



b -S3.5 or S4.5

By looking under the sphere, remove the **quill key.**

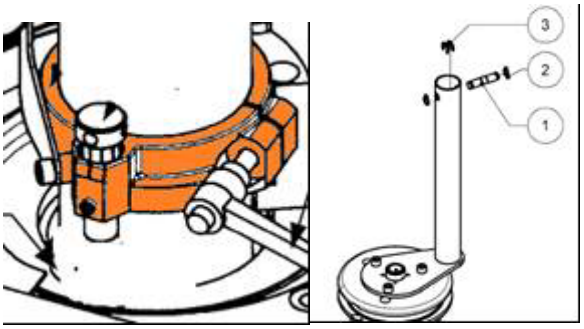
Now with the hand wheel, lift up the spindle until you reach the top position.



2. Spindle safety locking

Put the adjustable spindle stop in contact with the spindle bearing and lock it, to keep the spindle in top position.

On the top of the spindle, remove the clips **2** and **3** and extract the axis **1.**

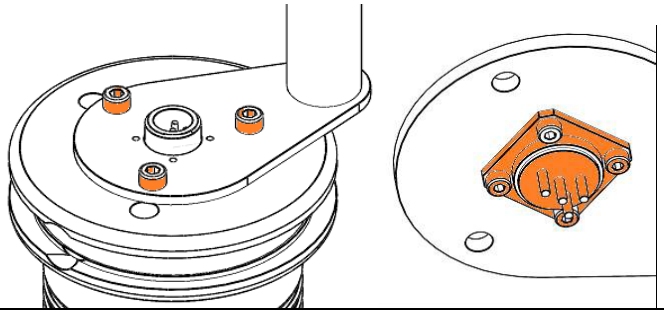


3. Disassembly

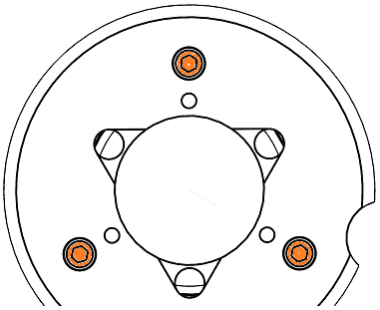
Remove the 3 screws holding the gas damper bracket.

On the bottom side of the bracket, remove the spindle cable connector.

With a soldering iron, desolder the 4 wires from the connector.



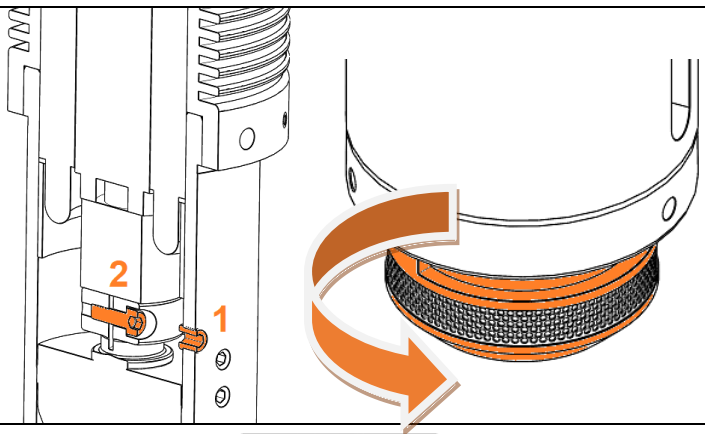
Remove the 3 screws holding the top spindle flange.



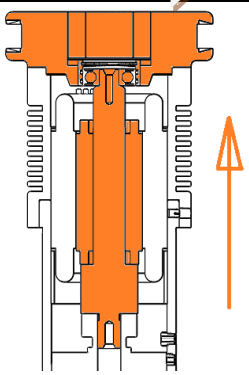
Then remove the plastic cap **1** located on the spindle.

With a flashlight, look into the hole and turn the spindle nut until the screw **2** is reachable with a **4mm** allen key.

Unscrew partially screw **2** so that the central shaft is free.

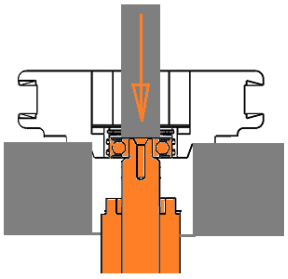


By hand, you can now extract upwards the whole internal assembly.



With the hydraulic press, push on the bearing to separate the stator shaft from the top black flange.

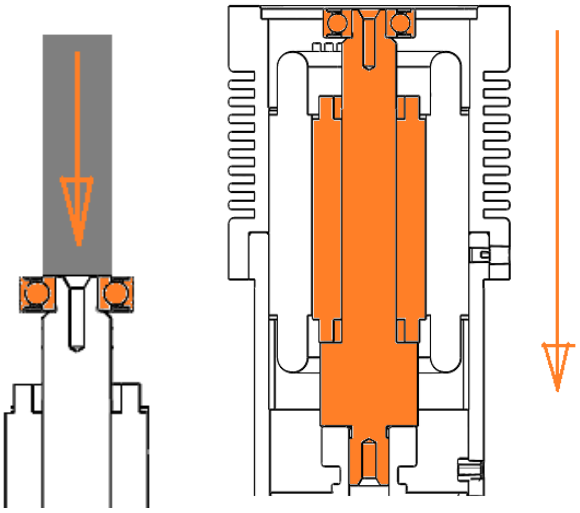
With the bearing puller, extract the old bearing from the shaft.



4. Parts replacement

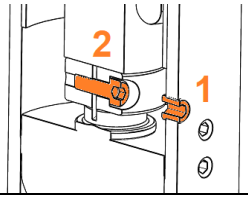
Install the new bearing on the shaft with the hydraulic press.

The rod pushing the bearing must lean on the internal ring of the bearing.

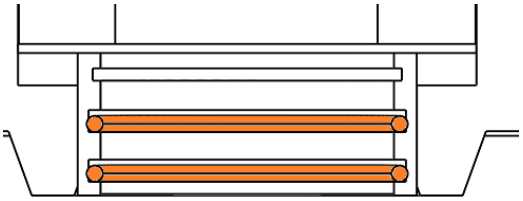


Reinstall the stator assembly inside the rotor, pay attention the stator is completely clean.

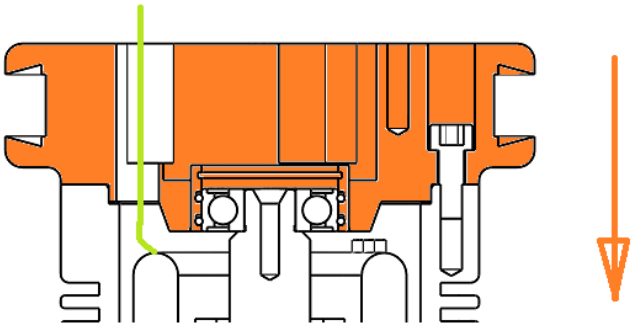
Tighten the screw **2** and install the cap **1**



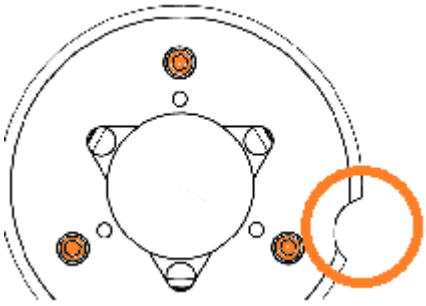
In the top flange supplied with the spare parts kit, install the two O-ring seals in the dedicated grooves (apply silicon based grease on the seals before installing)



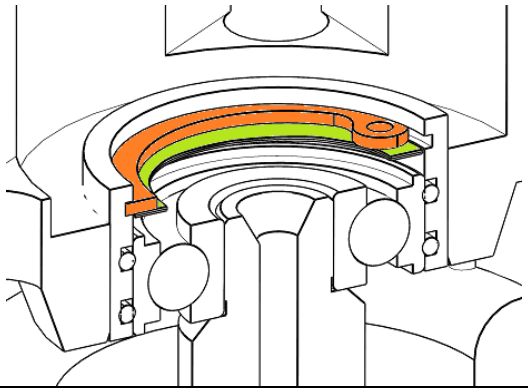
Install the top flange assembly on the radiator, paying attention the **wires** of the stator fit into the dedicated through holes.



Tighten the 3 screws holding the top spindle flange, pay attention the circled area is indexed properly.



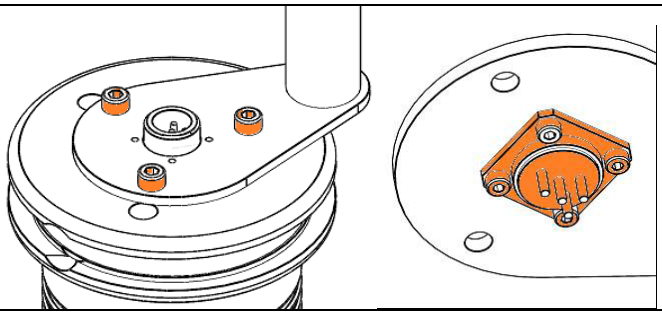
Install the two **spring washers 020895** and clamp them with the **internal ring 028318** which will fit in the upper groove.



Reinstall the white circle cap and solder the 4 wires on the connector **020502** as shown on the picture.

Install the connector from the bottom side of the gas damper bracket.

Install the 3 screws holding the gas damper bracket.



Fit the axis **1** into the gas damper bracket, remove the adjustable spindle stop.

Fit the spindle stop matching with your machine.

Test the machine.