Procedure to check play of lines of ETCW gearbox.

1- Preparation

To check the play, you need to extract external bearing rings from rear cover. For this you need an extractor, a heater plate and **GLOVES**.

How to operate :
-Put the cover on the heater plate
-When it is hot, help you with the extractor to extract bearings

2- Primary and secondary lines gap

initialize your control means '0' on primary 6th gear face.

2- Primary and secondary lines gap

Measure gap G between primary and secondary lines on secondary 6th gear.
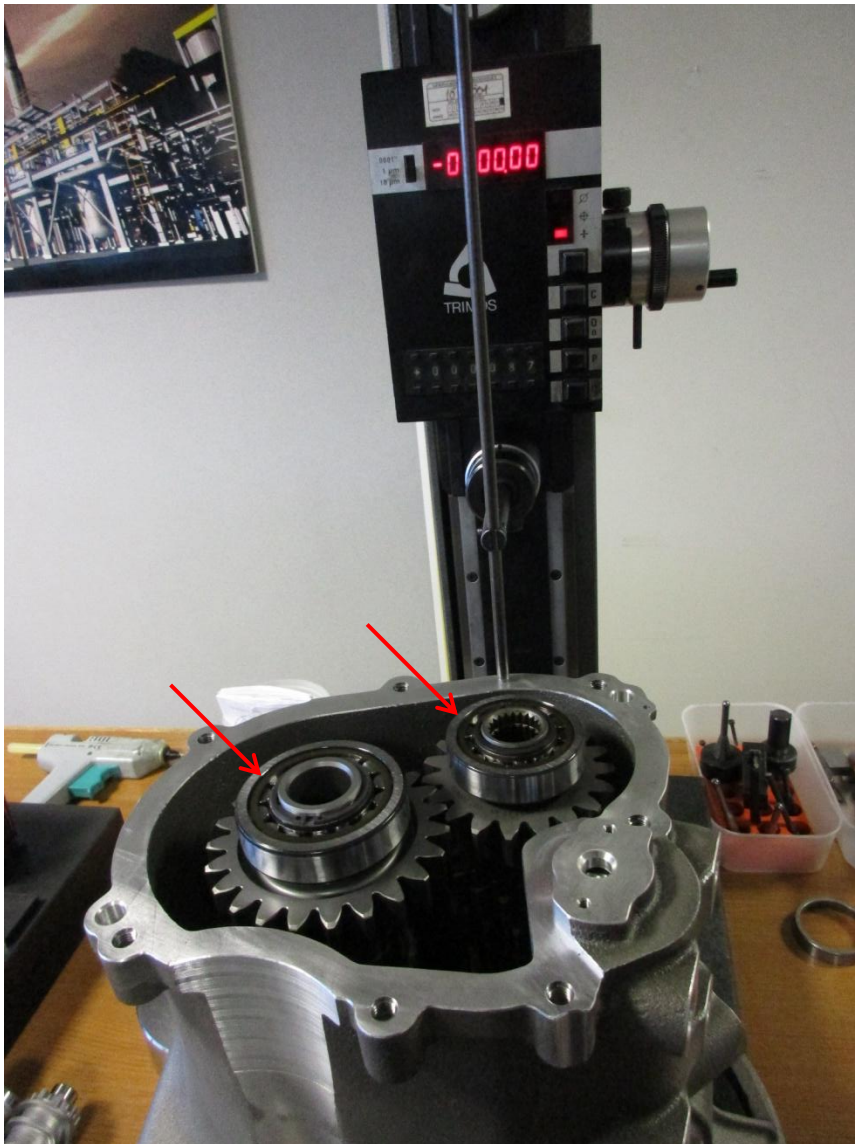

Gap G

If the value exceeds 0.5mm, adjusting shim Ø61xØ52 for primary line or Ø71x60 for secondary line should be added on clutch casing side .
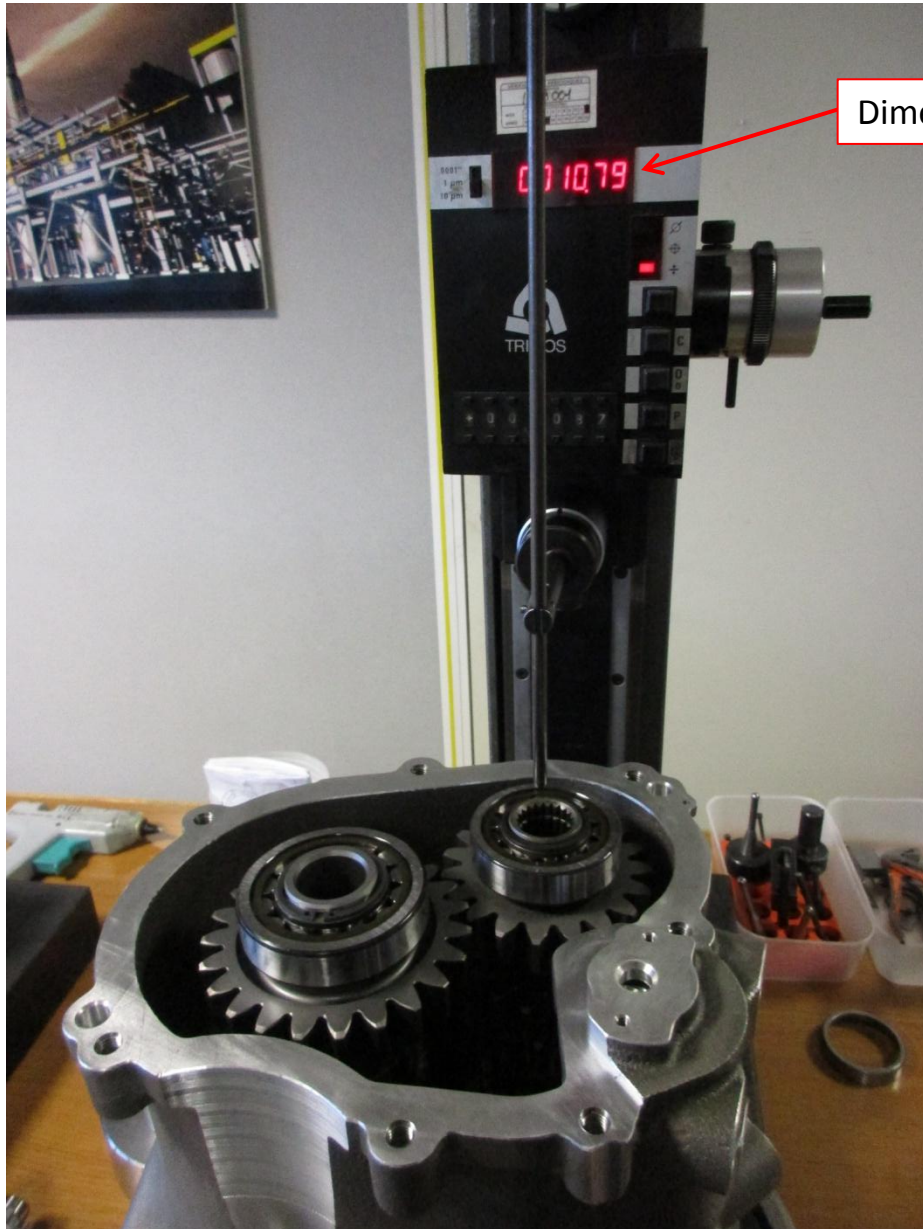
3- Primary and secondary lines play

When the bearings are cold, put them on the lines and initialize your control means '0' on cover contact surface.
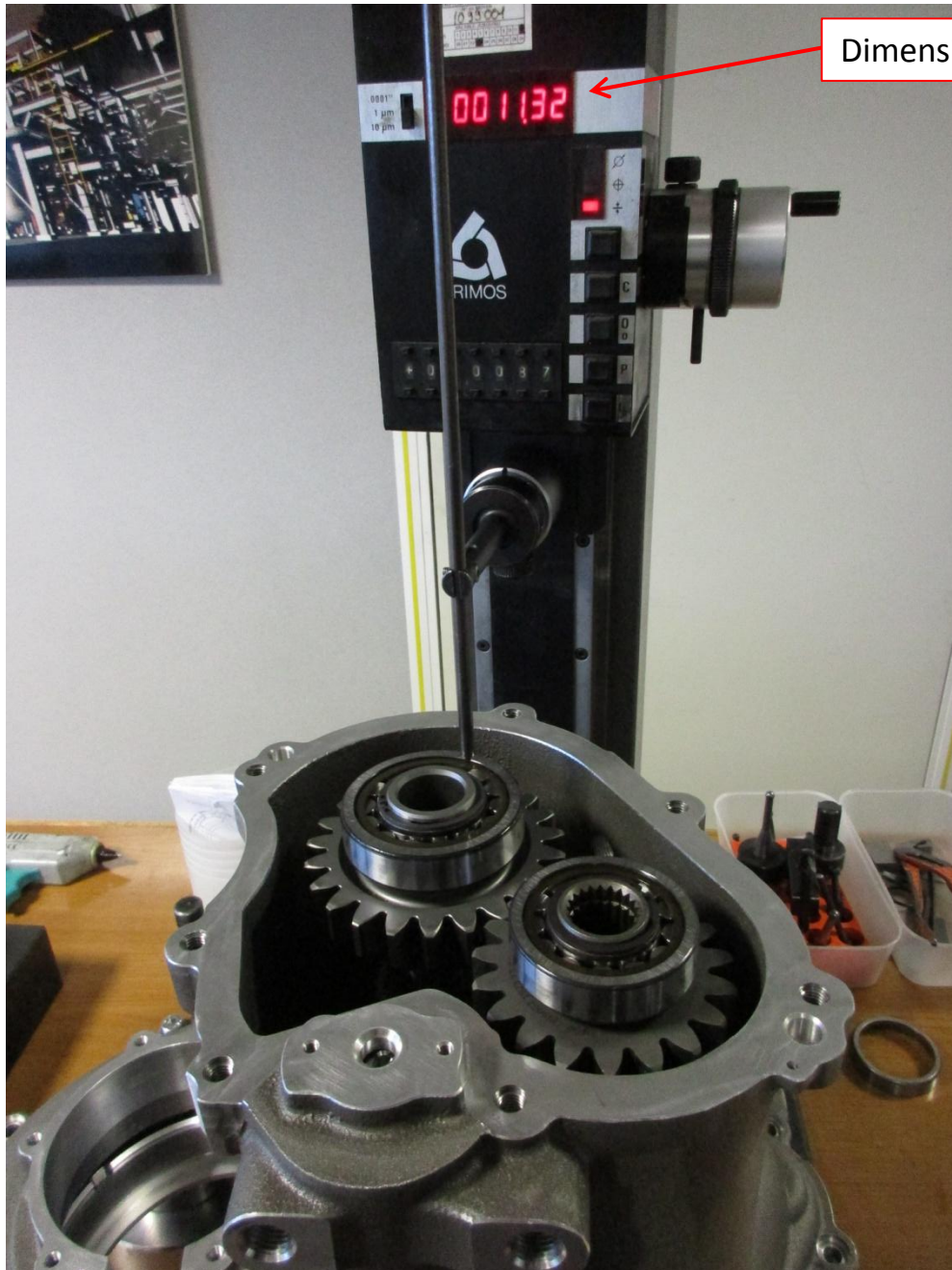
3- Primary and secondary lines play

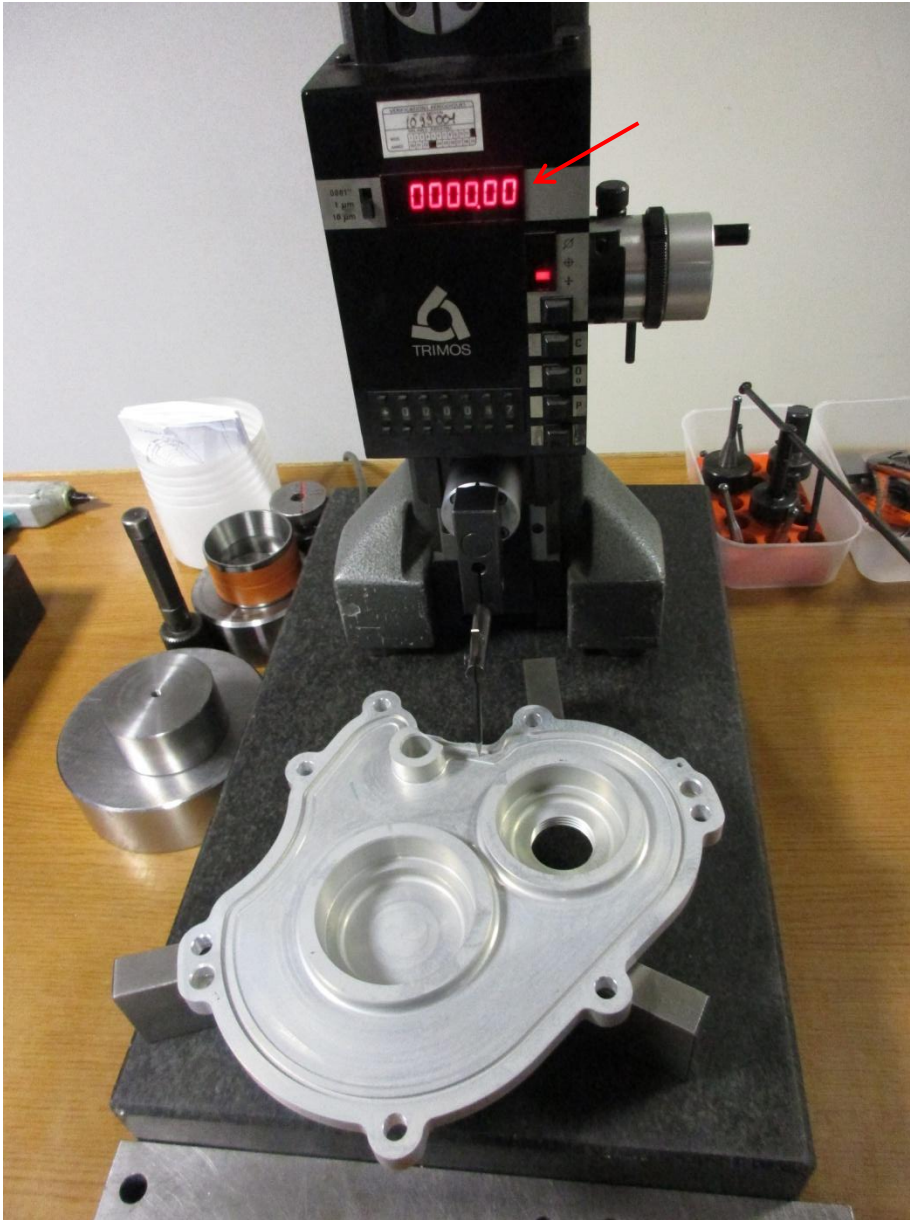Measure dimension P1 on primary line (gearbox side)

Dimension P1

3- Primary and secondary lines play

Measure dimension S1 on secondary line (gearbox side)
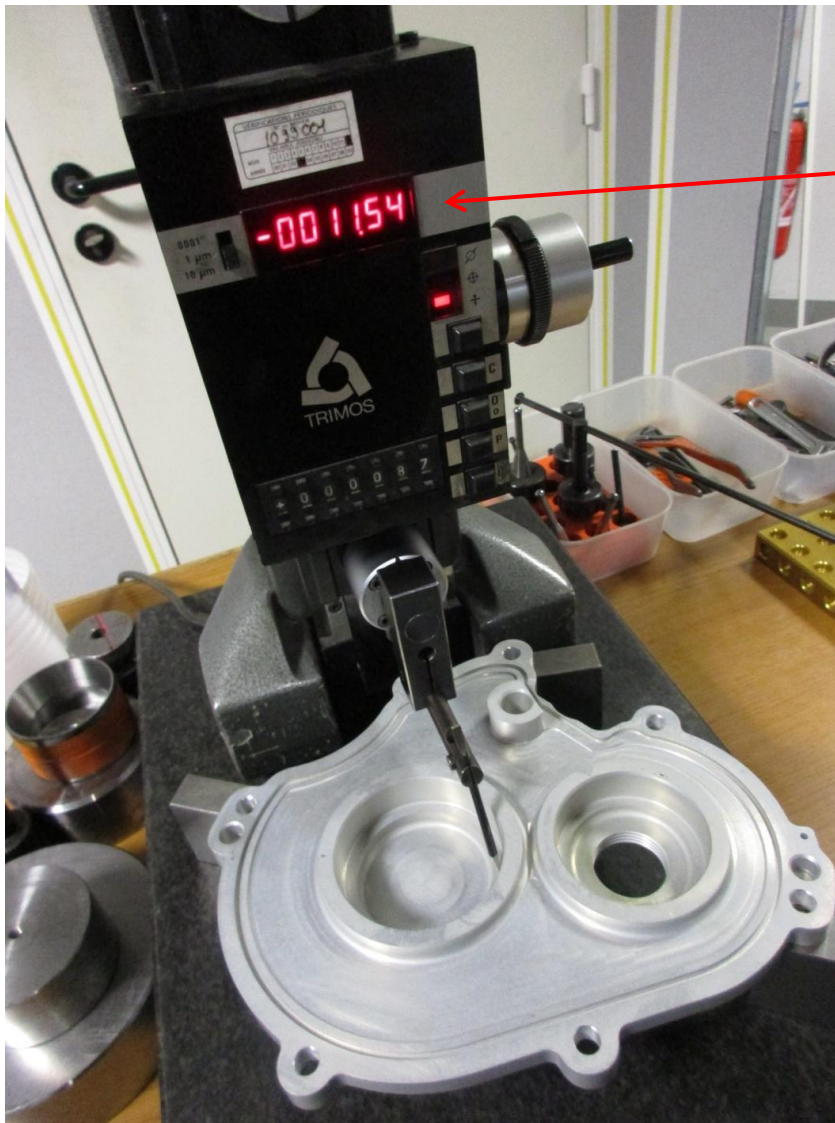

Dimension S1

3- Primary and secondary lines play

initialize your control means '0' on gearbox contact surface.

3- Primary and secondary lines play

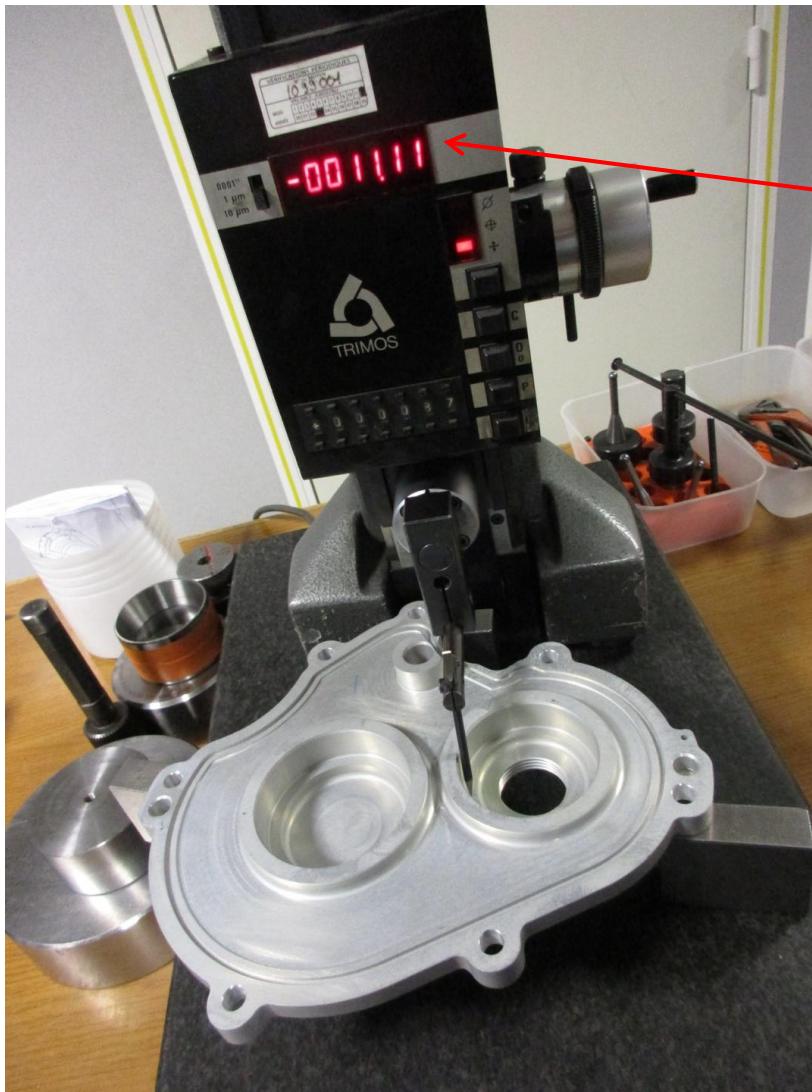Measure dimension S2 on secondary line (cover side)

Dimension S2

Secondary line play = S2-S1

For example here it is 11.54 – 11.32 = 0.22mm

If the value exceeds 0.4mm, adjusting shim Ø71xØ60 should be added on cover side.

3- Primary and secondary lines play

Measure dimension P2 on primary line (cover side)

Dimension P2

Primary line play = P2-P1

For example here it is 11.11 – 10.79 = 0.32mm

If the value exceeds 0.4mm, adjusting shim Ø61xØ52 should be added on cover side.

4- Barrel axial play

initialize your control means '0' on barrel through sensor hole.

4- Barrel axial play

Move the barrel on upper position and measure barrel play B.

Barrel play B

If the value exceeds 0.3mm, adjusting shim Ø51xØ47 should be added on cover side .

5- Procedure to assemble external bearing rings in the cover

1- Put the cover on heater plate

2- Put glue Loctite 648 on external bearing rings

4- Procedure to assemble external bearing rings in the cover

3- Put the rings in the cover (if the cover is hot enough, the rings engage freely).