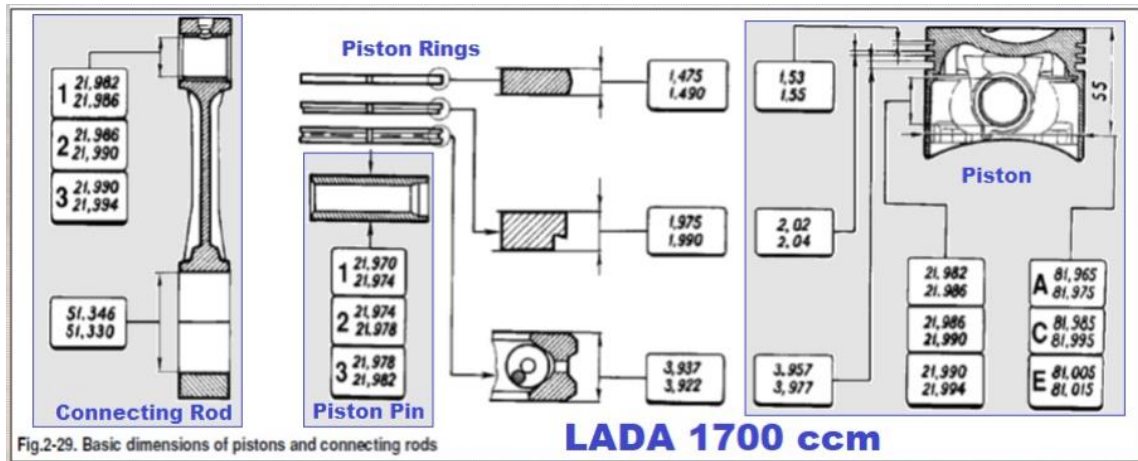


Hello Lada community,

here's a small documentation about modifying the Lada 1700ccm connecting rod to fit in a fiat 1608 (Engine: 125BC000).

First of all a look at the **Lada specification sheet**:



**The Fiat 124 1608cc rod specifications are:**

Engine Code: 125BC000

c-c: 136mm

Rod Small end diameter: 21.982-21.986mm

Rod Big end diameter: 51.330-51.346mm

Fiat rod width: 25.4mm

In the post, you can also find a specification sheet about the fiat engine.

As you can see, nearly all measurements are the same.

All you have to do is to modify the width, the small end bore and the piston clips.

So here's a small documentation about:

- 1) Modifying the width 27,00mm → 25,40mm
- 2) Cutting a slot for a piston clip
- 3) Hone the small end bore

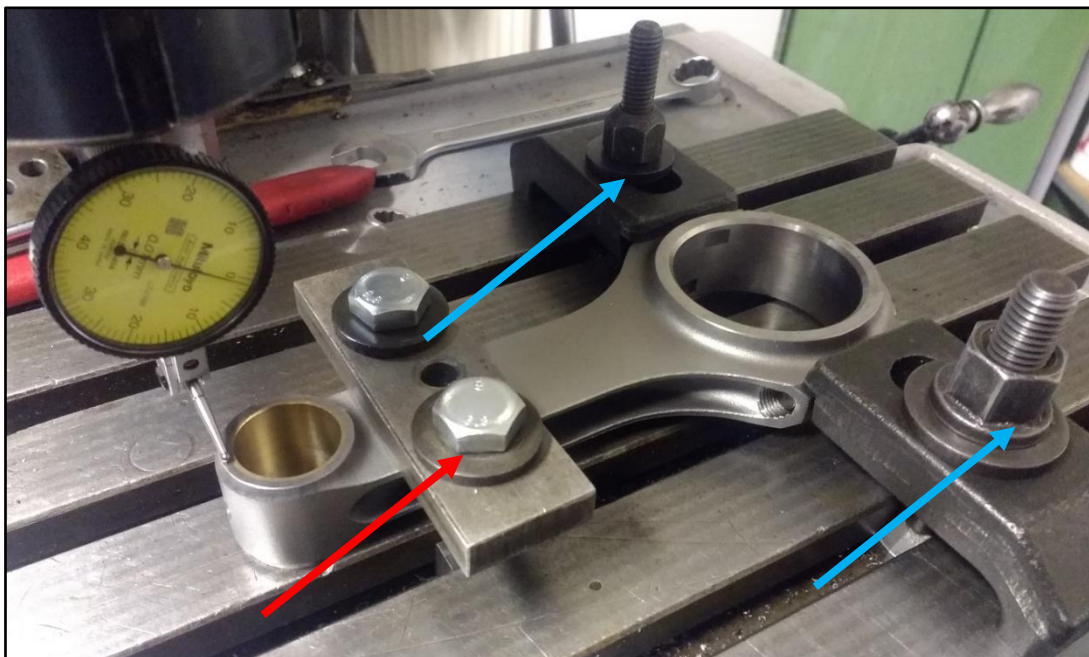
### 1) Modifying the width 27,00mm → 25,40mm

So let's start with the connecting rods.

First check the weight of the connecting rods, in my opinion they are nearly equal. Pretty good:



For milling the rods from 27,00mm to 25,40mm you need to mill 0,8mm from every side:



It's very important to check the parallelism of the small and big end of the rod. Don't tight the screw (red or blue arrow) too much, it'll bend or tipping the rod surfaces! Check it by a dial gauge! . I had a difference of 0,01mm between all rod surfaces, that's okay.



You need to turn the connecting rod on the milling machine after removing 0,8mm. So the width will be 25,4mm.



The last step is to turn a phase 1mm x 45°, because the original one doesn't exist anymore after milling. The phase is important to reduce friction between the rod and crankshaft.

## 2) Cutting a slot for a piston clip



The only way to remove the old press fit piston pin is to mill it down. Otherwise you will destroy the piston or the piston pin surfaces in the piston.

Let's start with the slot for a piston clip:

There are two different kind of clips, but I will use the left one, which is lighter.



Below, you can see the measurements of the „Seegerring DIN 472“:

| Sicherungsringe für Welle        |            |         |       |      |      |
|----------------------------------|------------|---------|-------|------|------|
| Federstahl, phosphatiert, geölt. |            | DIN 472 |       |      |      |
| Art. Nr.:                        | d1 Nennmaß | d3      | d2    | s    | m    |
| J 8x0,8                          | 8,00       | 8,70    | 8,40  | 0,80 | 0,90 |
| J 9x0,8                          | 9,00       | 9,80    | 9,40  | 0,80 | 0,90 |
| J 10x1                           | 10,00      | 10,80   | 10,40 | 1,00 | 1,10 |
| J 11x1                           | 11,00      | 11,80   | 11,40 | 1,00 | 1,10 |
| J 12x1                           | 12,00      | 13,00   | 12,50 | 1,00 | 1,10 |
| J 13x1                           | 13,00      | 14,10   | 13,60 | 1,00 | 1,10 |
| J 14x1                           | 14,00      | 15,10   | 14,60 | 1,00 | 1,10 |
| J 15x1                           | 15,00      | 16,20   | 15,70 | 1,00 | 1,10 |
| J 16x1                           | 16,00      | 17,30   | 16,80 | 1,00 | 1,10 |
| J 17x1                           | 17,00      | 18,30   | 17,80 | 1,00 | 1,10 |
| J 18x1                           | 18,00      | 19,50   | 19,10 | 1,00 | 1,10 |
| J 19x1                           | 19,00      | 20,50   | 20,00 | 1,00 | 1,10 |
| J 20x1                           | 20,00      | 21,50   | 21,00 | 1,00 | 1,10 |
| J 21x1                           | 21,00      | 22,50   | 22,00 | 1,00 | 1,10 |
| J 22x1                           | 22,00      | 23,50   | 23,00 | 1,00 | 1,10 |
| J 23x1                           | 23,00      | 24,80   | 24,40 | 1,20 | 1,20 |

I used an old piston pin to tighten the piston in the turning machine. Just tight the piston pin into the turning machine and put some screw loctide between the piston and the piston pin, so it's „glued“ and won't slip. Don't use too much, so you can remove the pin later by hand or rubber mallet:



### 3) Hone the small end bore

The original piston pins are press fit, the piston pin diameter is: 21,995mm and the connecting rod bore is 21.982-21.986mm.

So you need to hone the connecting rod to 22,010mm.

I tried to hone the rod by myself, but it's very difficult. Better to bring it to the machine shop. I payed 10\$ per rod.

So here are my new parts for my fiat:

