

## Installation instructions gasket set for a fuel distributor made of gray cast iron

Please note:

This manual is just a sample guide to describe how to overhaul an **adjustable 4 cyl. cast iron fuel distributor**.

Basic technical knowledge is required.

Please follow the instructions exactly when installing the gasket set and always work clean and tidy, as even the smallest impurities can lead to leaks.

As a sealant we recommend Hylomar M 40ml. This is not included in the Repair Kit for shipping reasons.

Required tools:

- 1x hammer
- 1x large flat-head screwdriver
- 1x TorxT27
- 1x Torx T30
- 1x ¼ "ratchet
- 1x ¼ "extension
- 1x cordless screwdriver
- 1x 5mm drill HSS
- spanner (12,13,14,16,17)
- 1x vice

### 1. Removal

1.1: Unscrew the banjo bolts of the fuel lines at the fuel distributor and put aside the fuel lines.

1.2: Loosen the 3 screws on top of the fuel distributor (Torx T30 or slot).

These screws connect the fuel distributor with the airflow meter.

Since the screw threads in the airflow meter corrode,

it may be that the screws are very tight.

If so, do the following:



For slotted screws, be sure to use a screwdriver with the tip as wide as the head of the screw. Try to loosen the screws by hammering with a hammer on the screwdriver (about 5 beats per screw). Press down on the screwdriver with your weight and try to release the screws with pressure. If this does not work, drill with the 5 mm drill bit about 2 mm deep into the head of the screw. Then insert a T30 into the hole and try to loosen the screws. If this does not work, drill off the heads of the screws (if possible without damaging the fuel distributor).

1.3: Remove the fuel distributor from the airflow meter. Make sure that the control piston does not fall out.

## 2. Deconstruct

2.1: Remove the sealing ring on the bottom side of the fuel distributor.

2.2: Unscrew the nut (19 mm spanner) on the bottom side and remove the locking plate.

2.3: Clamp the fuel distributor with the piston side pointing upwards into a vise. Be sure to clamp only the top of the fuel distributor.

2.4: Unscrew the 8 Torx screws (T27) on the bottom side of the fuel distributor.



2.5: Loosen the lower part of the fuel distributor from the upper part by short rotating movements of the lower part. If the lower part is stuck, use a hammer to help. Support the short turning movements with light hammer blows on the lower part. When the lower part has come loose, pull it off the upper part. Do not twist the upper and lower parts as this may damage the control cylinder. Never use a screwdriver to pry off the halves. This causes damage to the sealing surfaces.



**2.6: Remove the sealing sheet and underlying plates and springs. Lay the parts carefully aside (preferably on a clean cloth).**

**Attention: If you notice now that the fuel distributor inside is heavily rusted, the fuel distributor halves must be sandblasted. The remaining parts should be cleaned in an ultrasonic bath. If you do not have these options, just send us an email. We will help.**

**2.7: Measure the distance from the spring sleeve to the fuel distributor housing with a vernier caliper. (see pictures)**



**Make a note of the measured values on a small sketch. The values should not be very different. If so, this is an indication that the fuel distributor has been misadjusted or an injector is faulty. Take out the spring sleeves.**

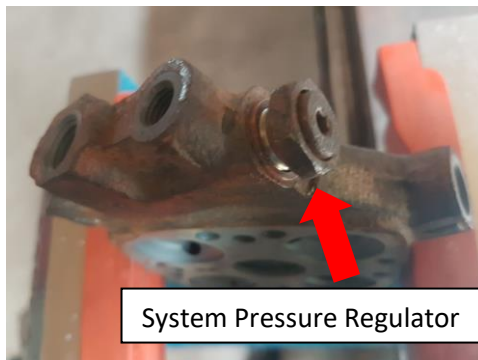
**2.8: Turn over the top half of the fuel distributor.**

**Unscrew the 4 Allen bolts.**

**Unscrew the adjusting screws underneath.**

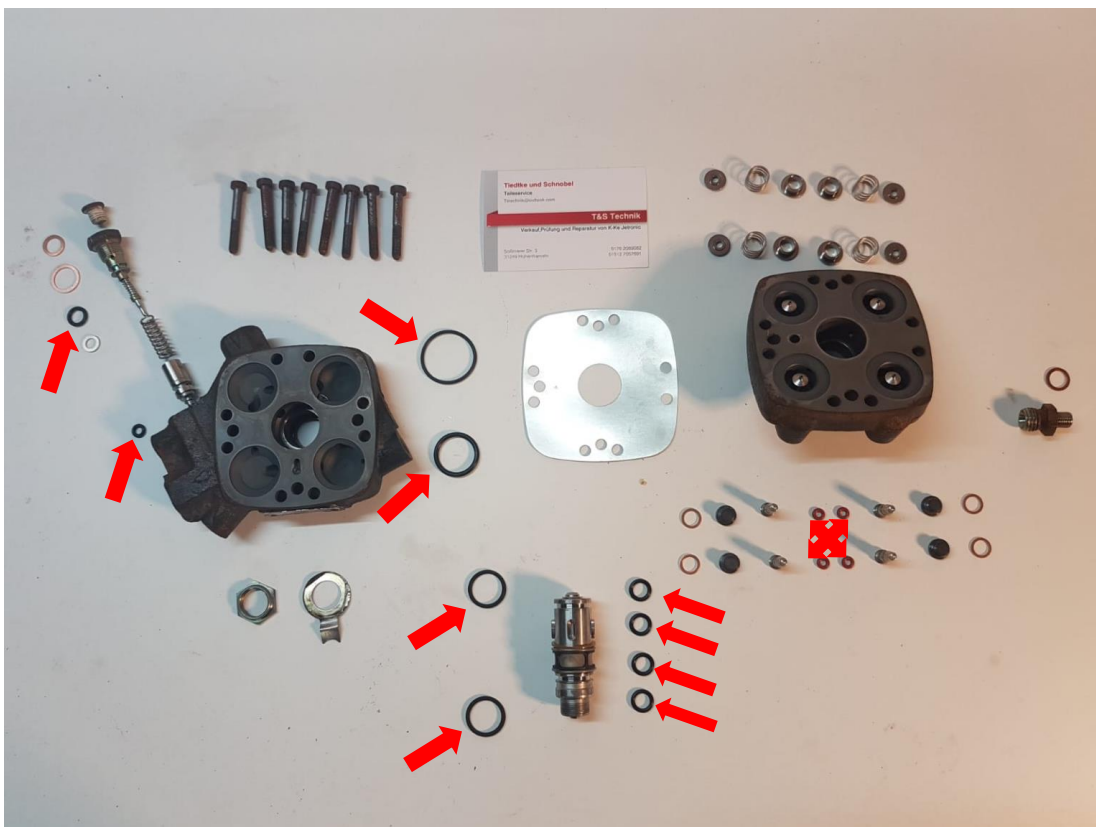


**2.9: Unscrew the system pressure regulator on the bottom side of the fuel distributor. Pay attention to the sleeve that may get stuck in the housing.**

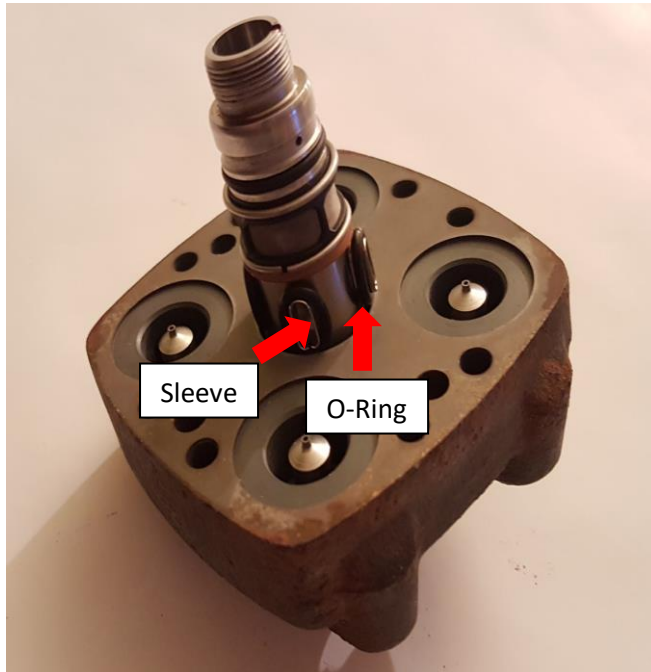


### **3.0 Assembly**

**3.1: Replace all o-rings (see picture). Wet the O-rings with some oil.**

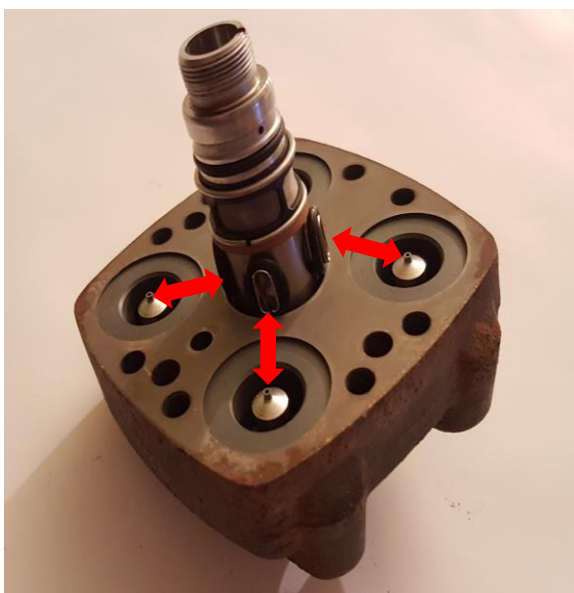


For the slot carrier, pull out the 4 metal sleeves a little bit to fit the O-rings. Then push the sleeves in with one finger until they are flush with the O-rings. Attention: Work very carefully and precisely, as the O-rings can tear very easily when inserting the slot carrier.

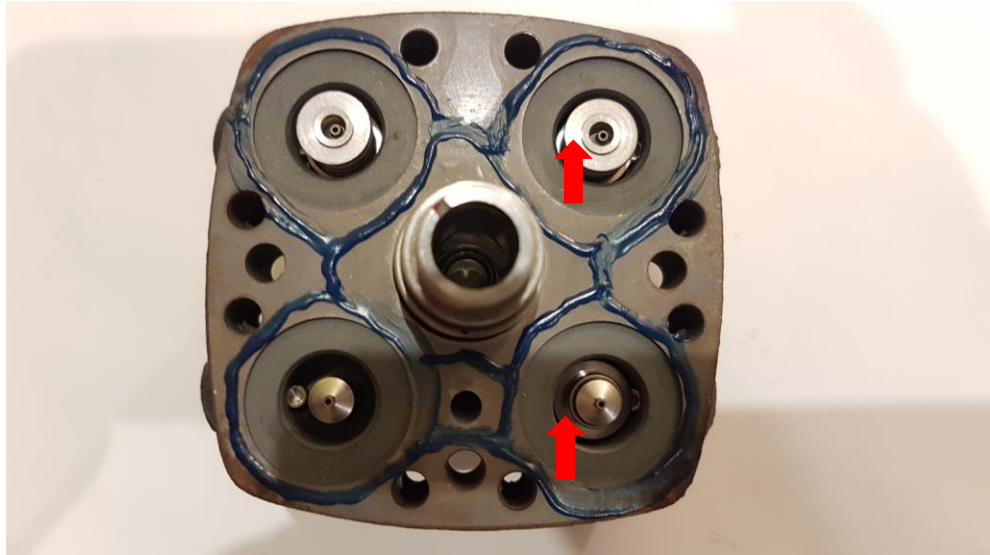


**3.1: Grind the surface of the fuel distributor halves using the sandpaper provided. (not punctually)**

**3.2: Insert the slot carrier into the upper fuel distributor half. Pay attention to the correct position of the slot carrier to the holes of the fuel supply. It is not relevant which slot points to which hole.**



**3.3: Screw in the 4 adjusting screws for the spring sleeves. Clamp the top half of the fuel distributor into the vise so you can access the adjusting screws.**



**Insert the spring sleeves. Now set the values that you noted on your sketch.**

**Apply the sealing compound (see picture). Cut off only the top tip of the spout (smallest possible opening). The sealing compound should be applied as thinly as possible. After applying the sealing compound, reinsert the springs and plates (see arrow).**

**3.4: Place the metal diaphragm seal on the top half of the fuel distributor. Make sure that the 0.4 mm hole of the metal diaphragm seal coincides with the control pressure regulation hole (see arrow).**



**3.5: Apply the sealing compound to the lower half of the fuel distributor. Leave the upper half clamped in the vice.**



**3.6: Now reassemble both fuel distributor halves without applying pressure. Pay attention again to the hole for control pressure regulation. Now insert all screws and tighten evenly crosswise at short intervals. Tightening torque 10 Nm.**

**3.7: Place the locking plate and tighten the nut.**

**3.8: Screw in the system pressure regulator with new sealing rings. Optionally, you can increase the system pressure by adding the enclosed discs (if necessary).**

**Caution: After repairing the fuel distributor, a CO adjustment is required.**

**We wish you every success in the repair of your fuel distributor.**

**We are happy to help you with any questions. Simply send us an e-mail.**

**Yours sincerely**

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