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TECHNICAL REPORT

Regulation of pump injectors
in TDI engine of the Vag Group



REASON

To inform about **the necessity of the regulation of pump injectors in TDI engines of the VAG Group** whenever a replacement of these components or related components is performed, for instance, replacement of camshaft and hydraulic lifters.

INTRODUCTION

A pump injector is a system **consisting of an injection pump and an injector, as one only component, whose function is to generate a high pressure** and the injection of diesel inside the combustion chamber in the right quantity and at the exact moment. Each cylinder has one of these elements.

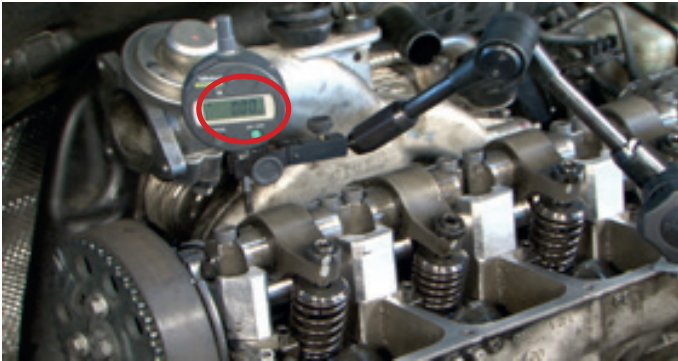
To generate the necessary pressure, **the axis of the camshaft has as many lobes as pump injectors the engine has.**

Working conditions of the engine, mainly temperature and friction, **make tolerances necessary in the manufacturing of pieces that are in contact**, and also respect the necessary clearances for the good functioning of the different elements.

REFULATION OF PUMP INJECTORS

Before disassembly and regulations, it is recommended to **let the engine cool, because expansions may affect measures.**

Necessary stages for the regulation of pump injectors



- Remove the valve cover, following manufacturer specs.
- Place the probe of the comparing clock and its support in such a way that the **probe is on the part of the rocker that actuates the lobe.**

- Turn the lobe axis until the injector lobe reaches its maximum height, then the injector will be powered.



- When this point is reached, **loosen the nut and tighten** the screw in the rocker and a resistance is visible.

- Loosen screw 225° using a goniometer.



- Keep the screw in this position and **tighten the nut 3 kg.**
- All previous steps **must be applied to the rest of pump injectors.**
- **Doing the reverse operation and checking that the screw move is 225°, we will verify that the adjustment is correct.**