

injector rail set – VW T5 2.5 TDI - installation guide

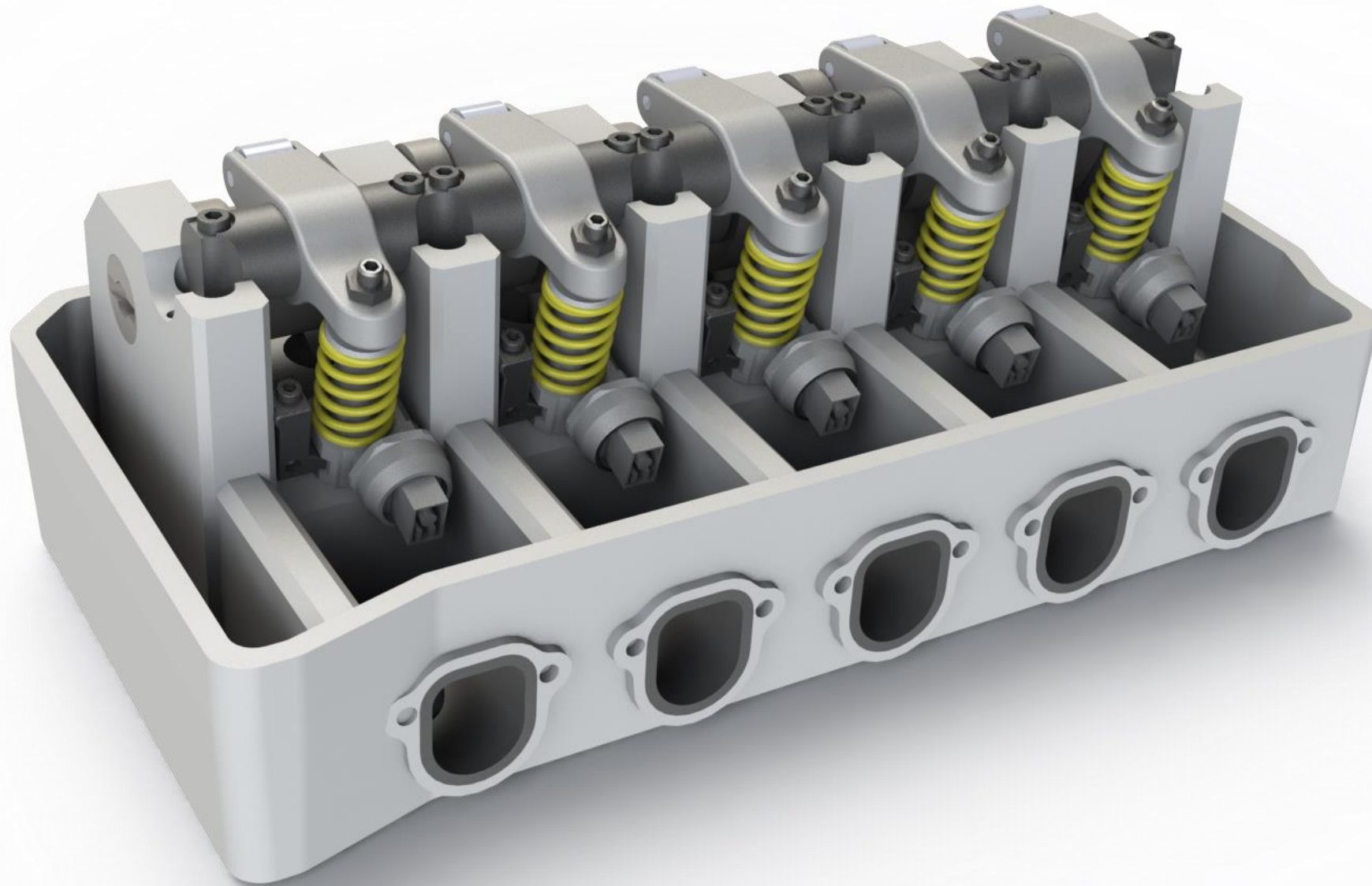
version 1.3



pumpe düse abhilfe.

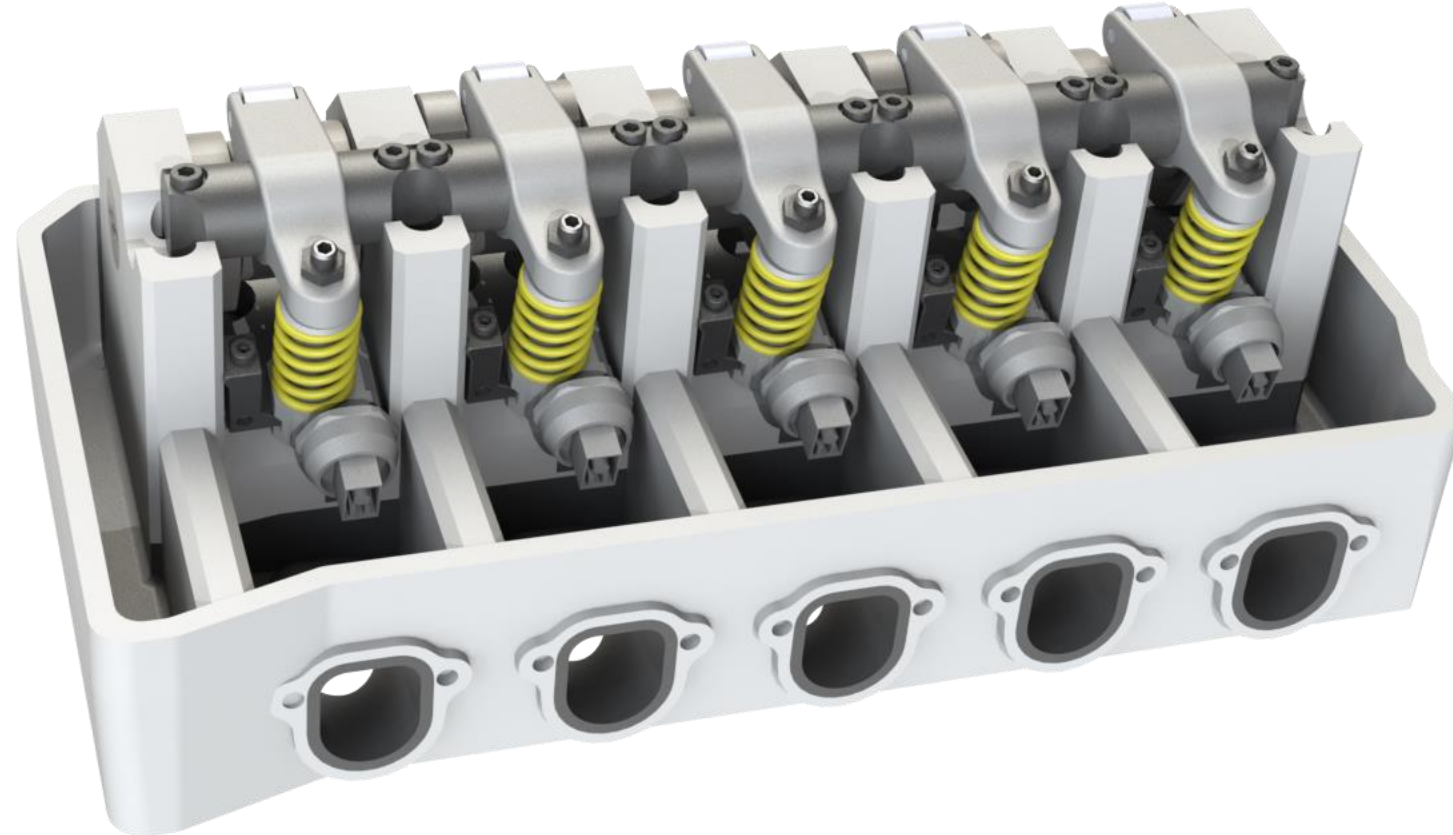
[Injector Rail Set - VW-2.5-TDI – 07eins GmbH](#)

cylinder head overview (symbolic)

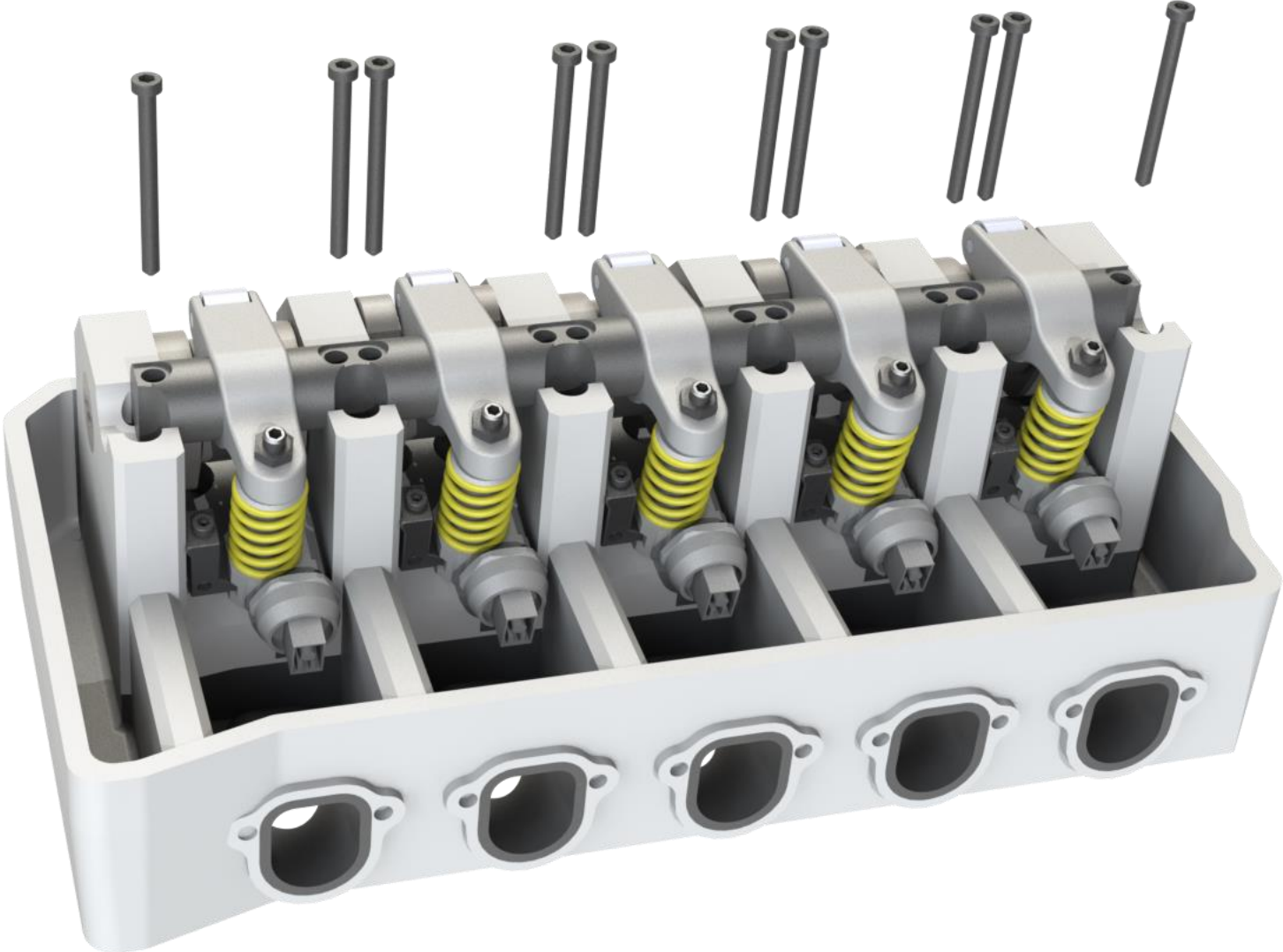


necessary steps in preparation:

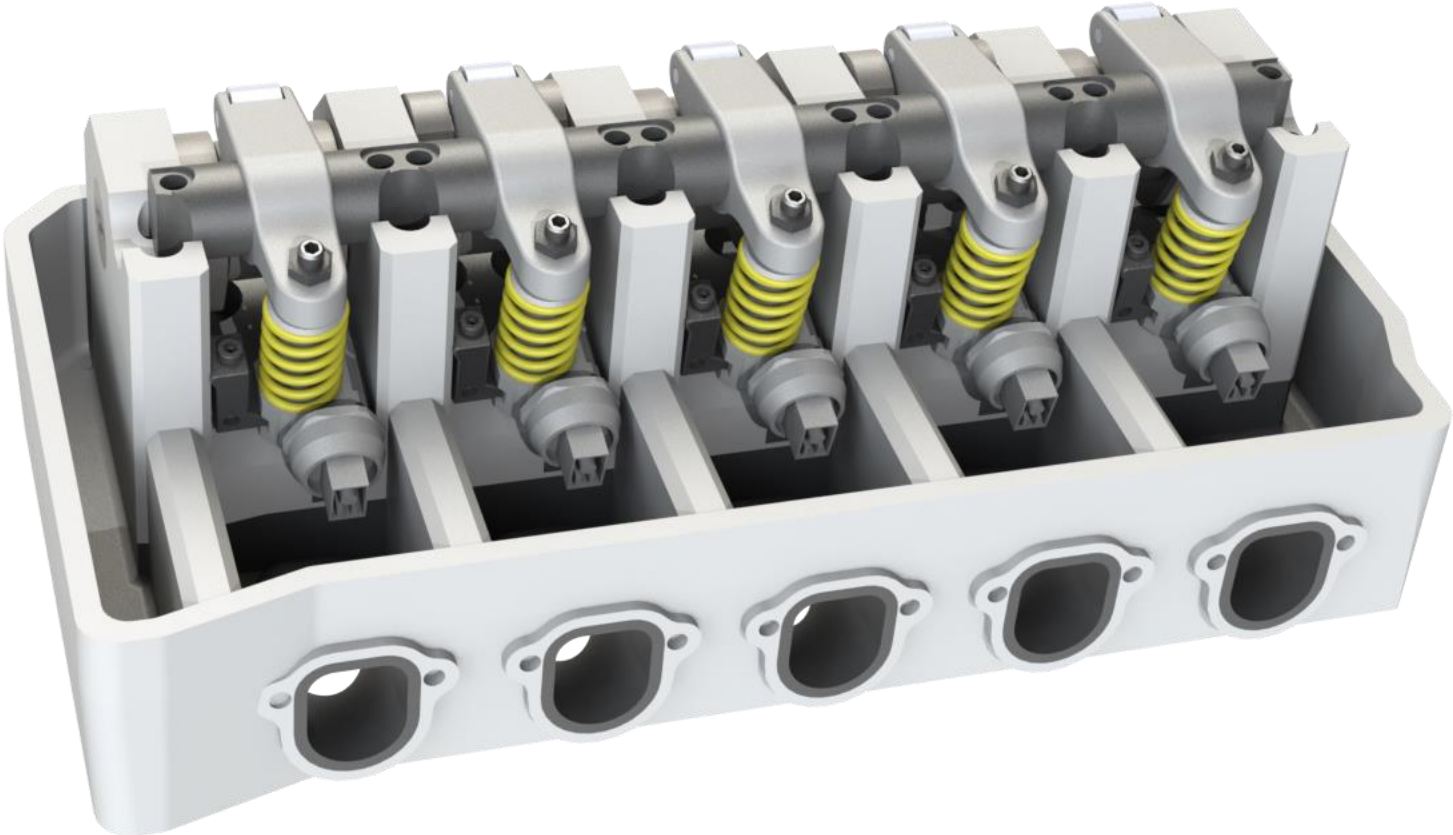
- set radiator and front to service position (tilted forward)
- dismount air intake and intake manifold
- dismount exhaust-gas-recirculation-valve on top of valve cover.
- dismount valve cover
- dismount injector wiring harness



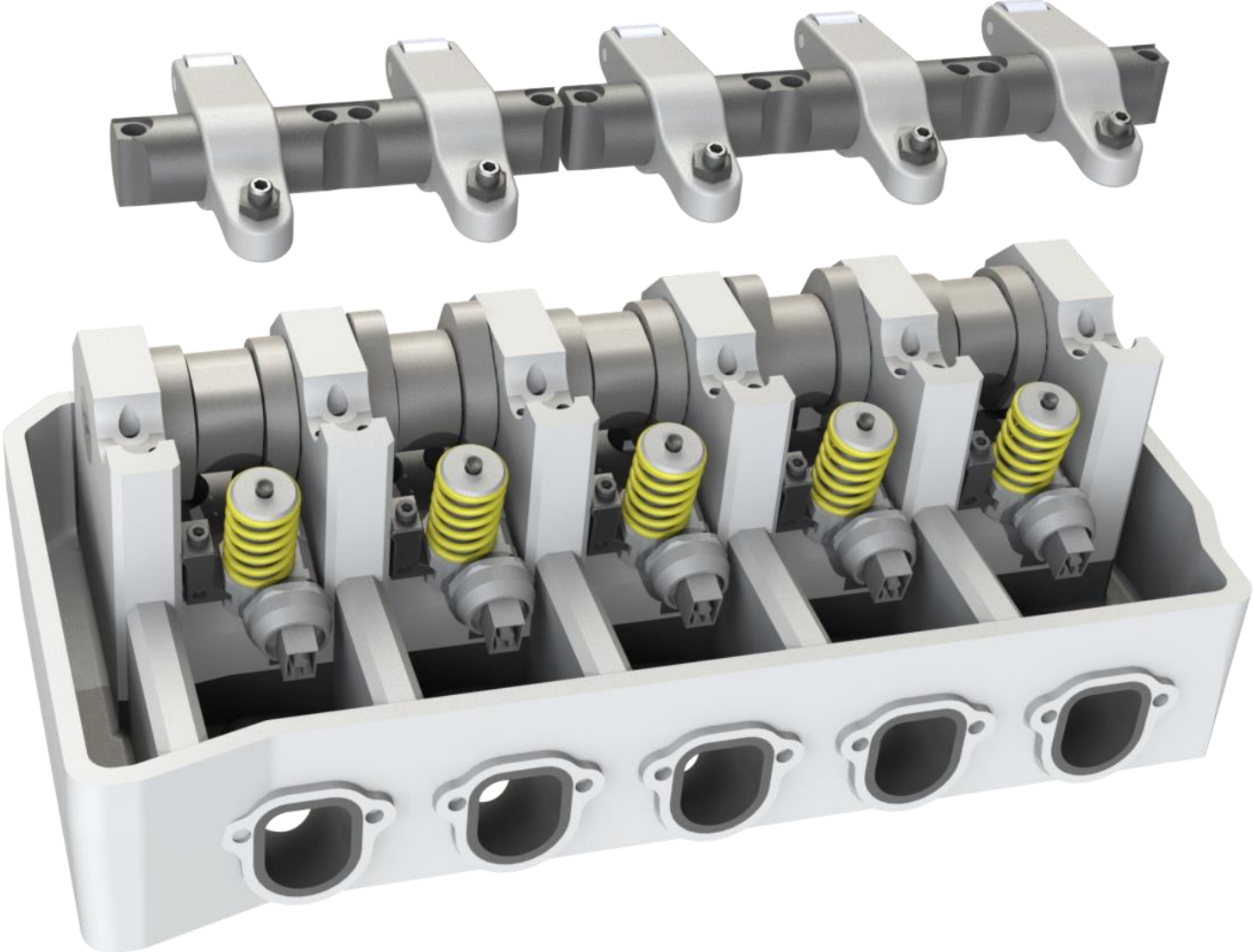
step 1: dismount screws of rocker arm shaft



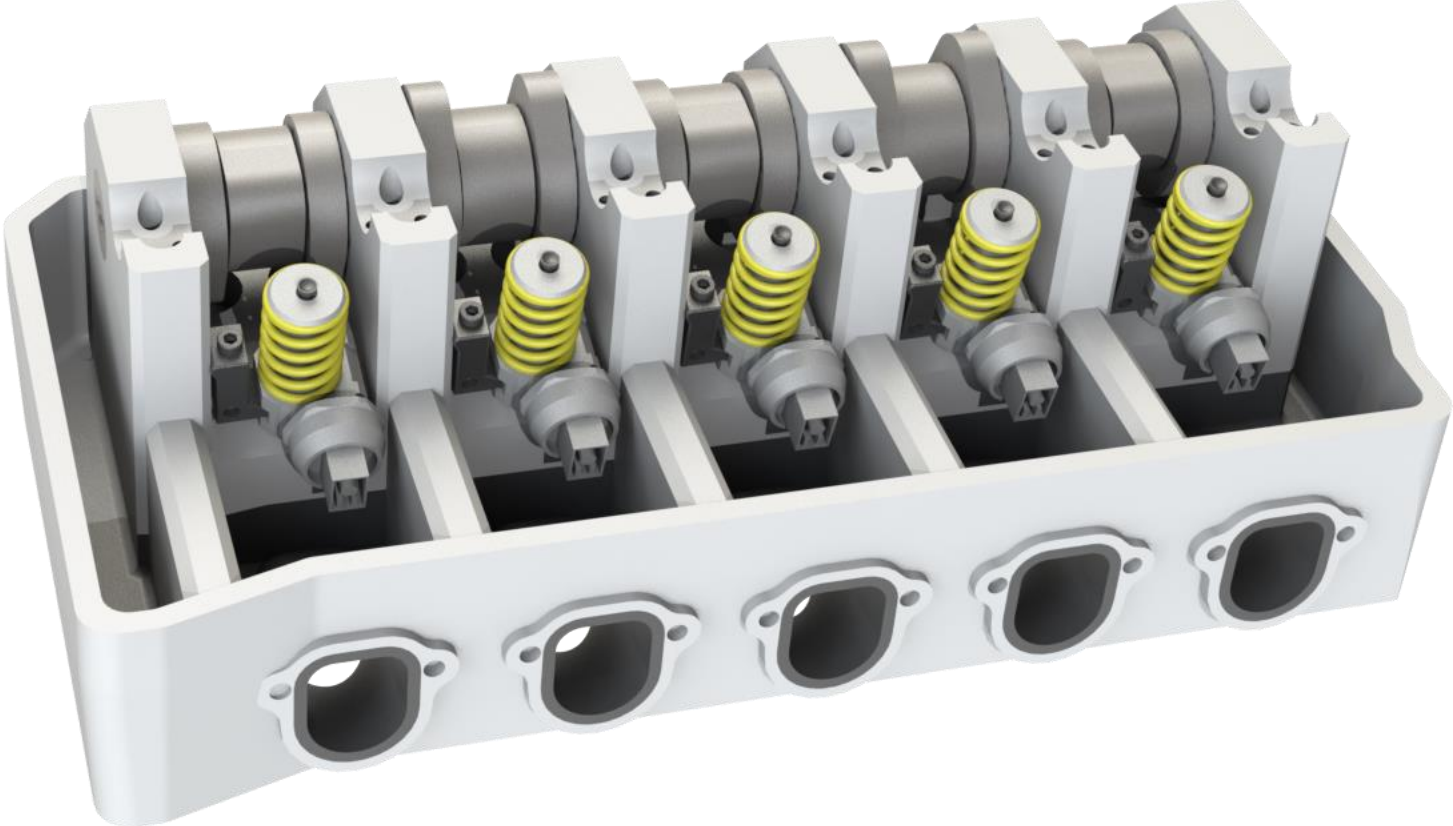
step 1: screws of rocker arm shaft dismantled



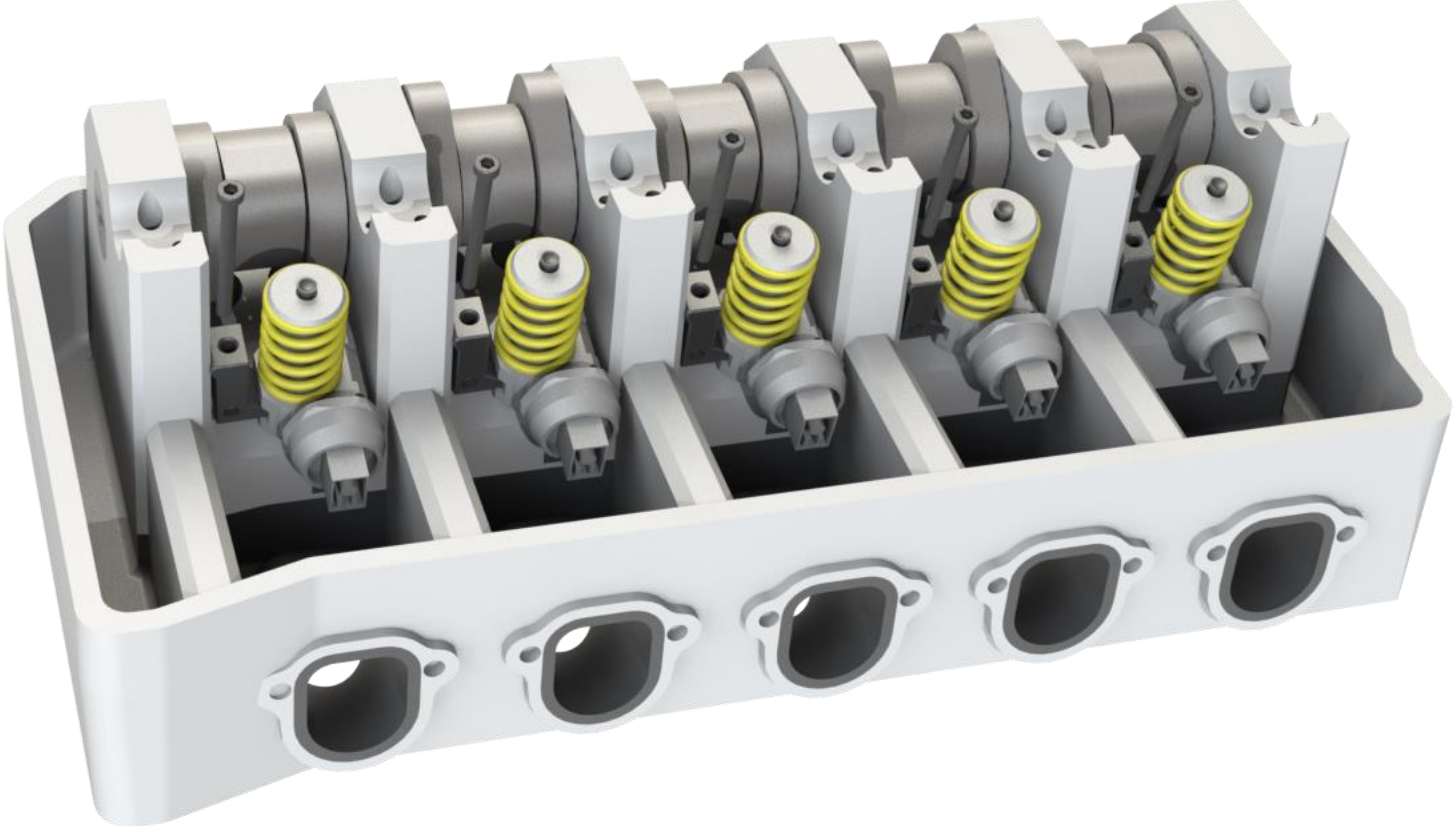
step 2: dismount rocker arm shaft



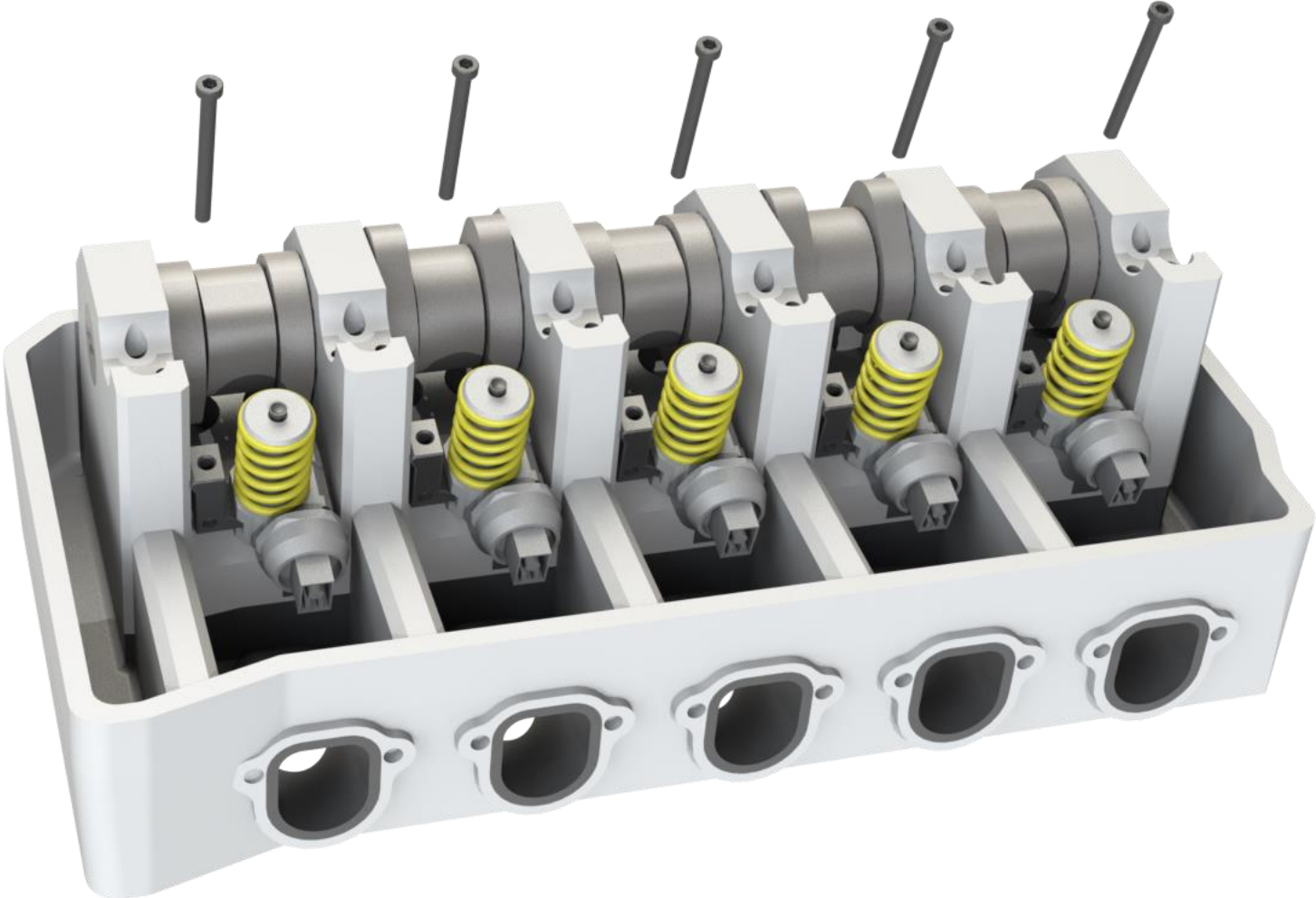
step 2: rocker arm shaft dismounted



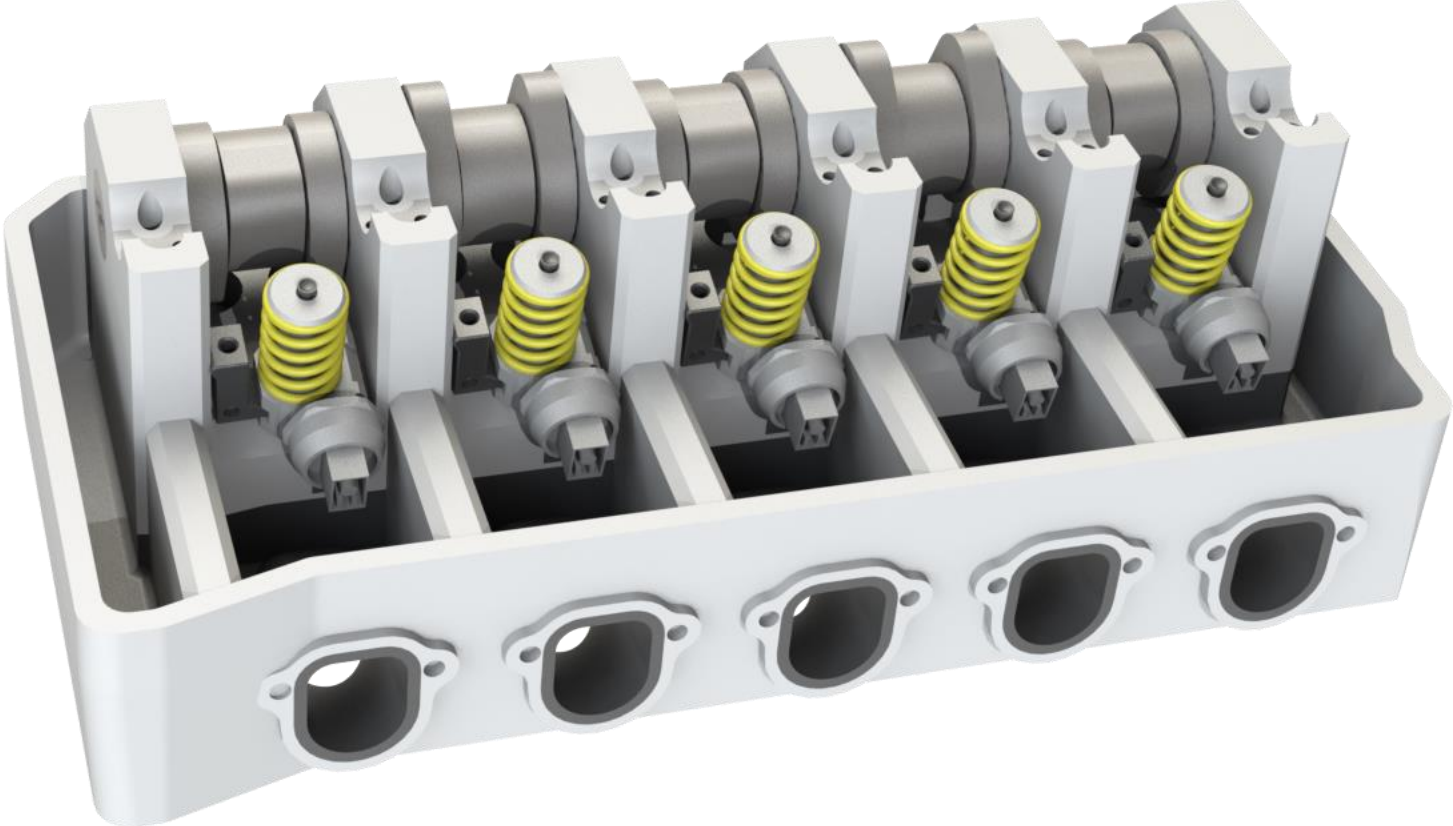
step 3: loosen injector screws



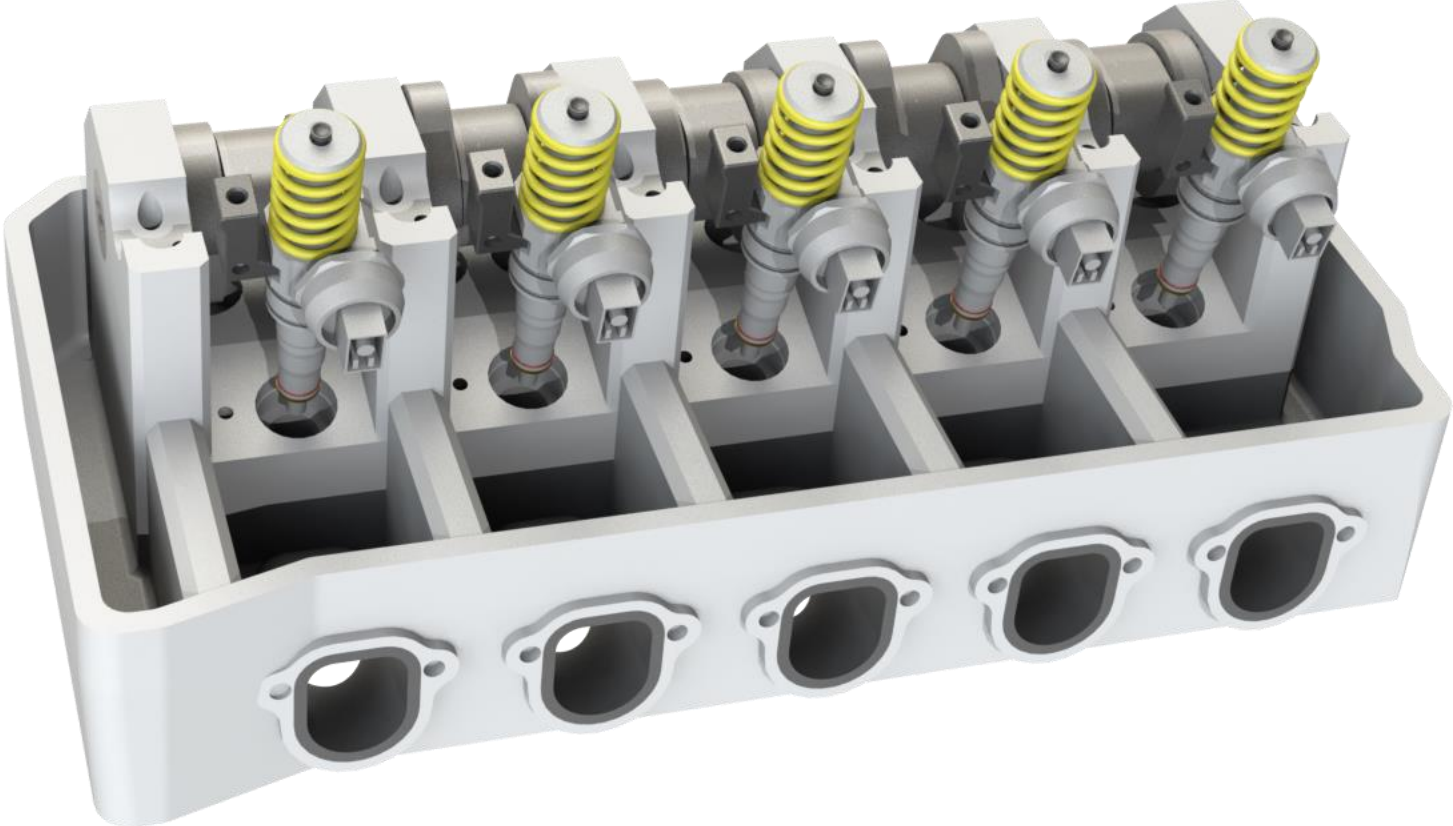
step 3: loosen injector screws



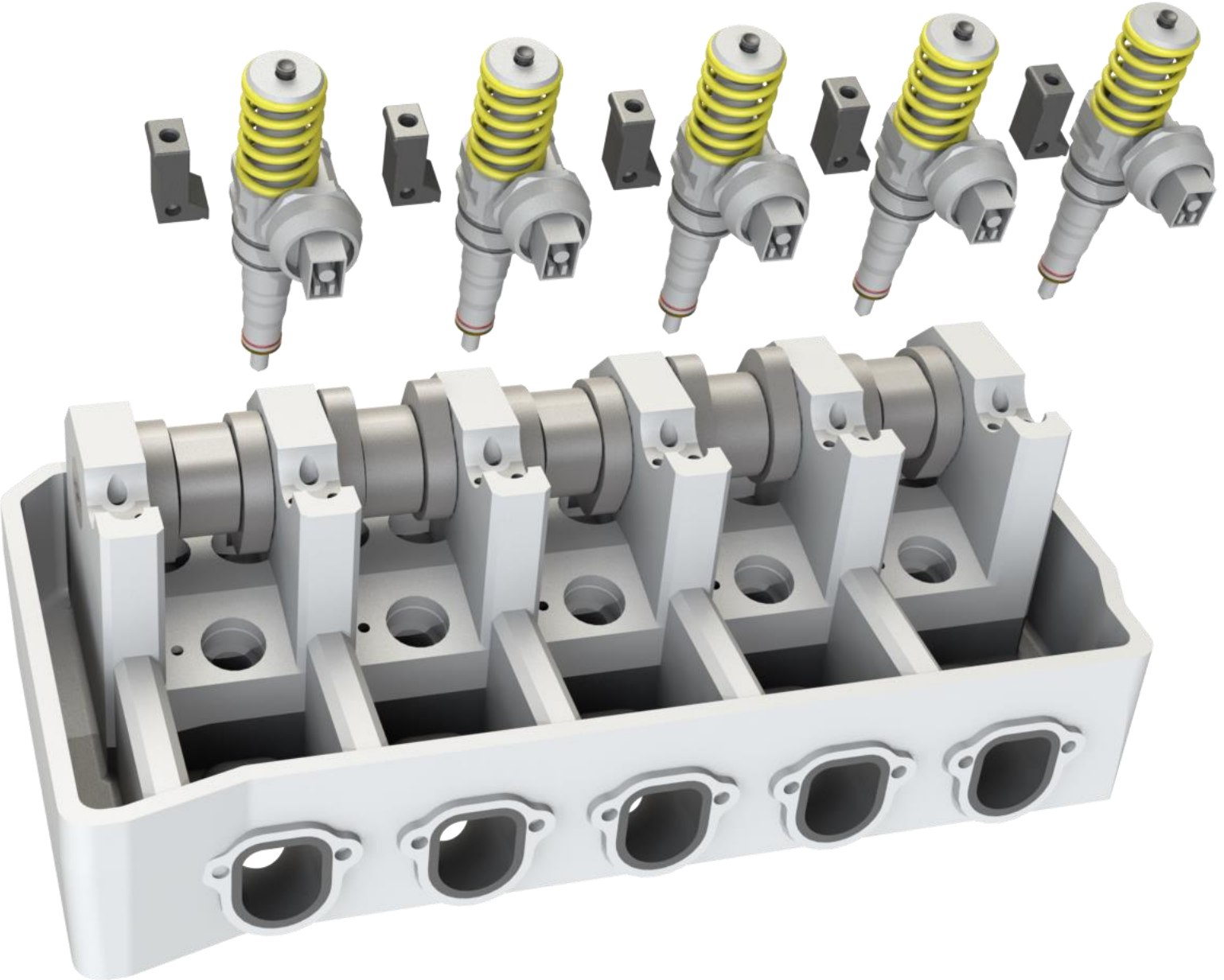
step 3: injector screws removed



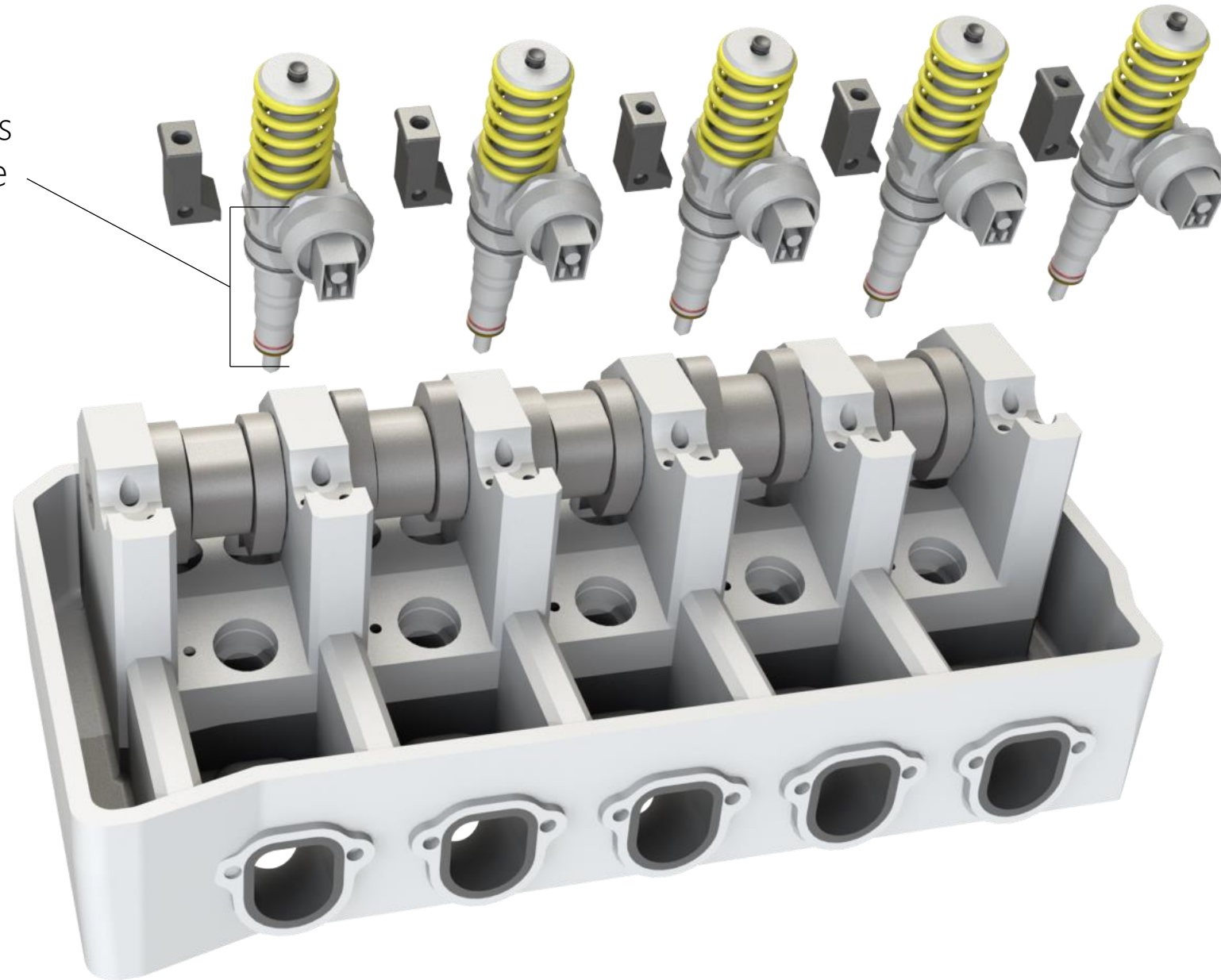
step 4: dismount injectors



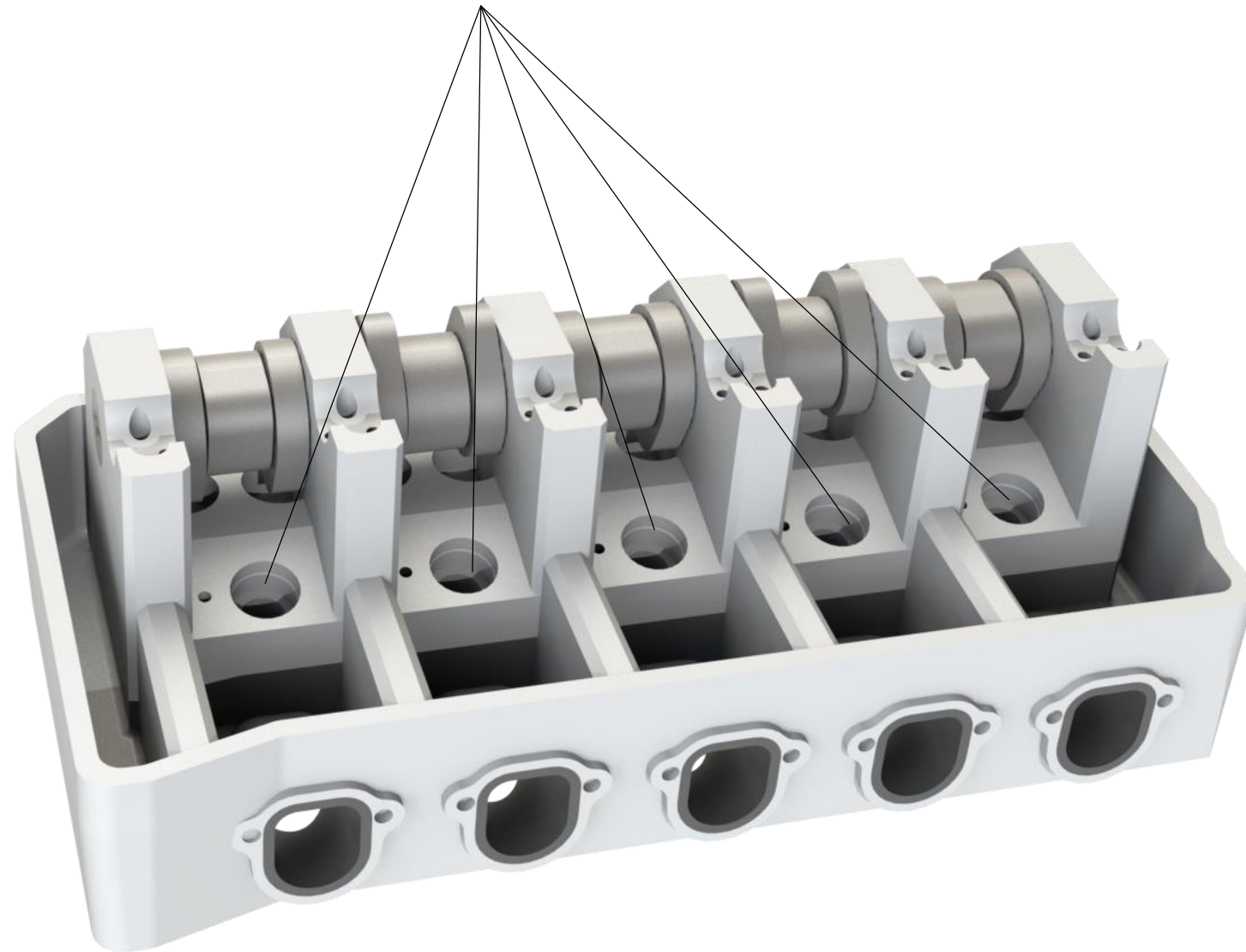
step 4: injectors dismantled



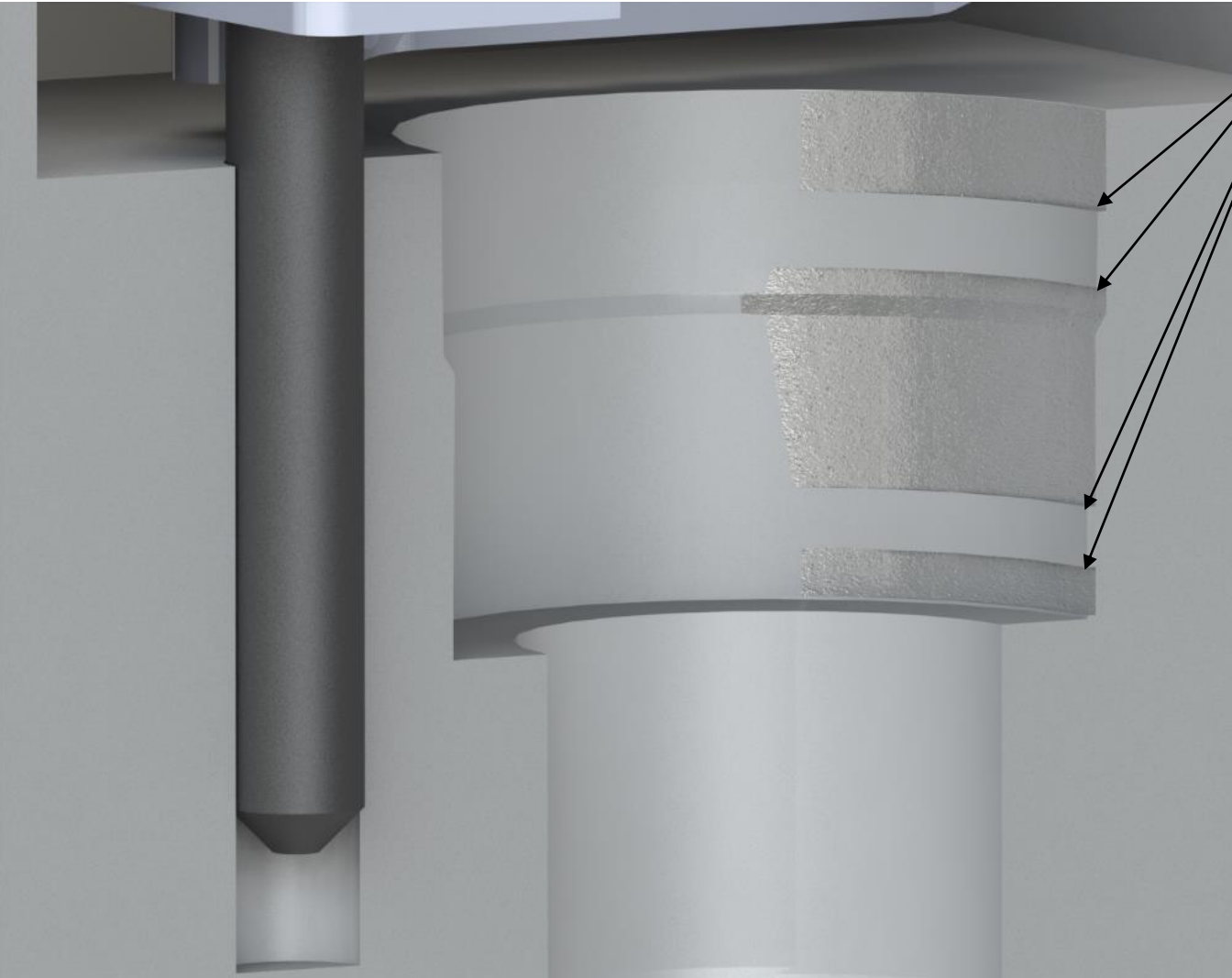
step 5:
new sealing rings are
required for a succesful
repair. Use high quality parts
only, as the sealing rings are
highly stressed parts of the
fuel injecting system



step 6: check existing damadges on the sealing surfaces



common damage:



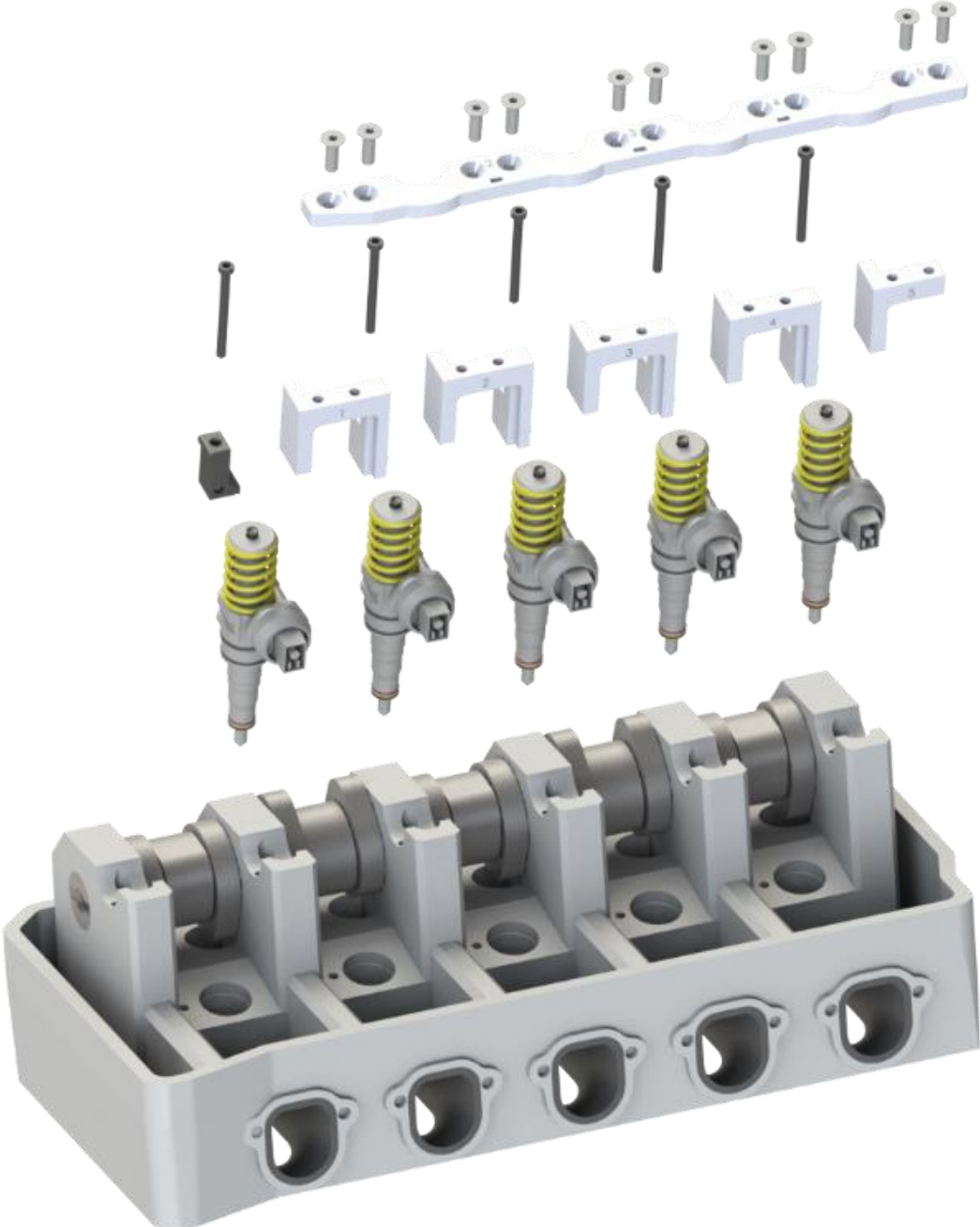
Sharp edges have to be removed before re-mounting the injectors – otherwise the new sealing rings will take damage.

procedure:

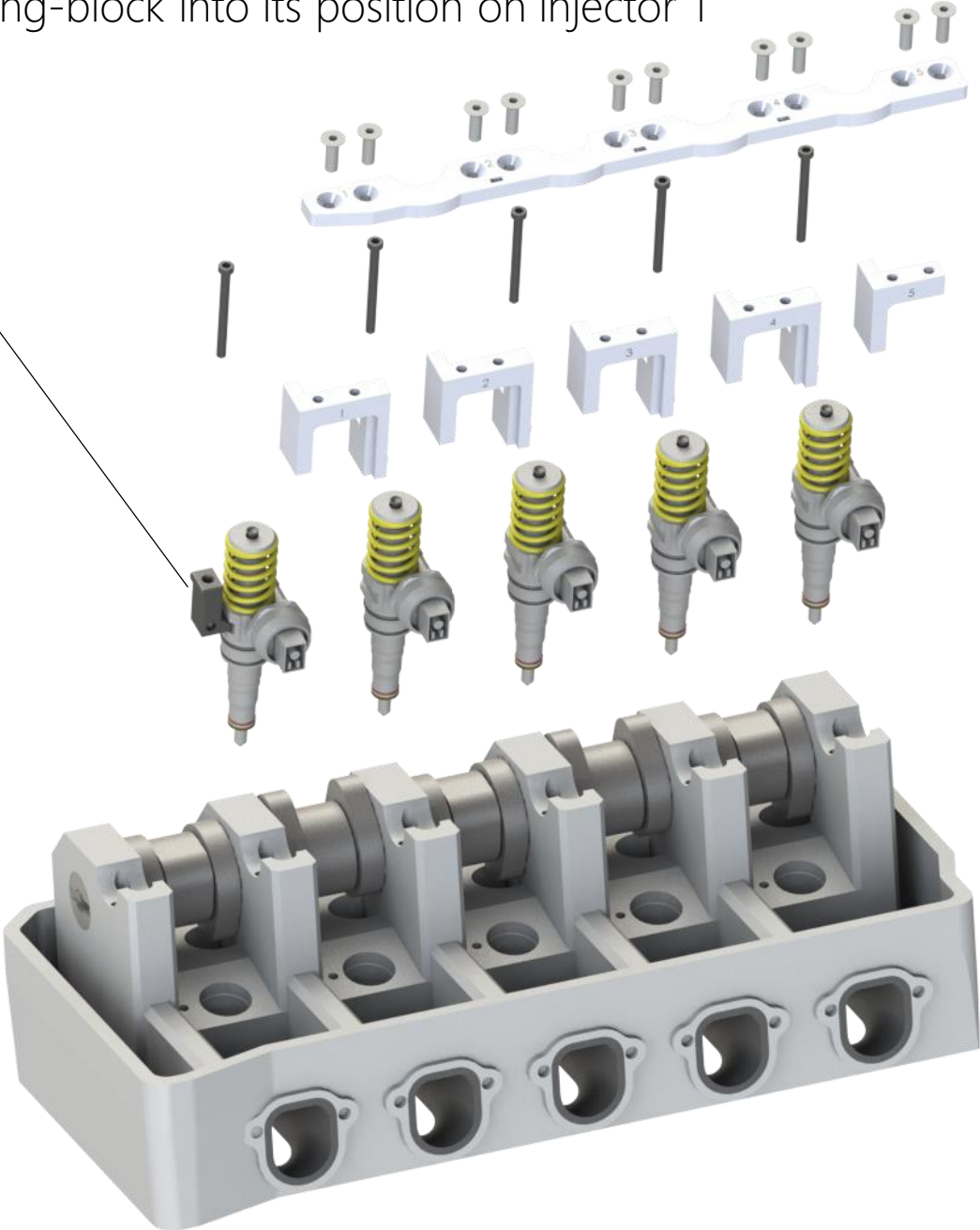
- use oil covered sandpaper, grit >800
- close deeper part of injector seat with tissue to avoid debris falling into the combustion chamber
- pay attention to cleanliness!

WARNING: Do not grind down the visible rings of damaged surfaces completely as this area will later become the new sealing surface again. Only remove the sharp edges to avoid damage to the seal-rings while being mounted.

overview of the injector rail set

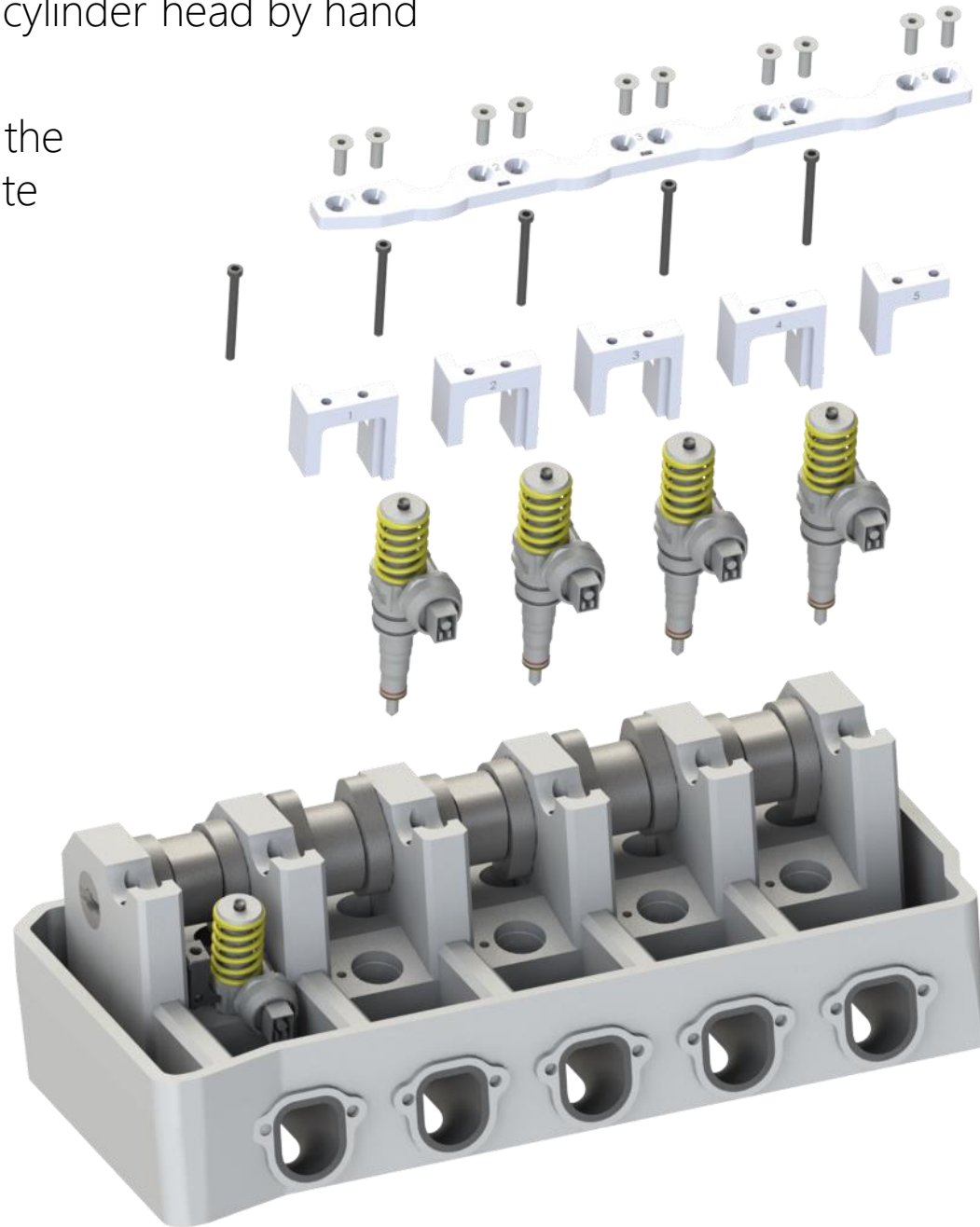


step 7: place the original clamping-block into its position on injector 1



step 8: insert injector 1 into the cylinder head by hand

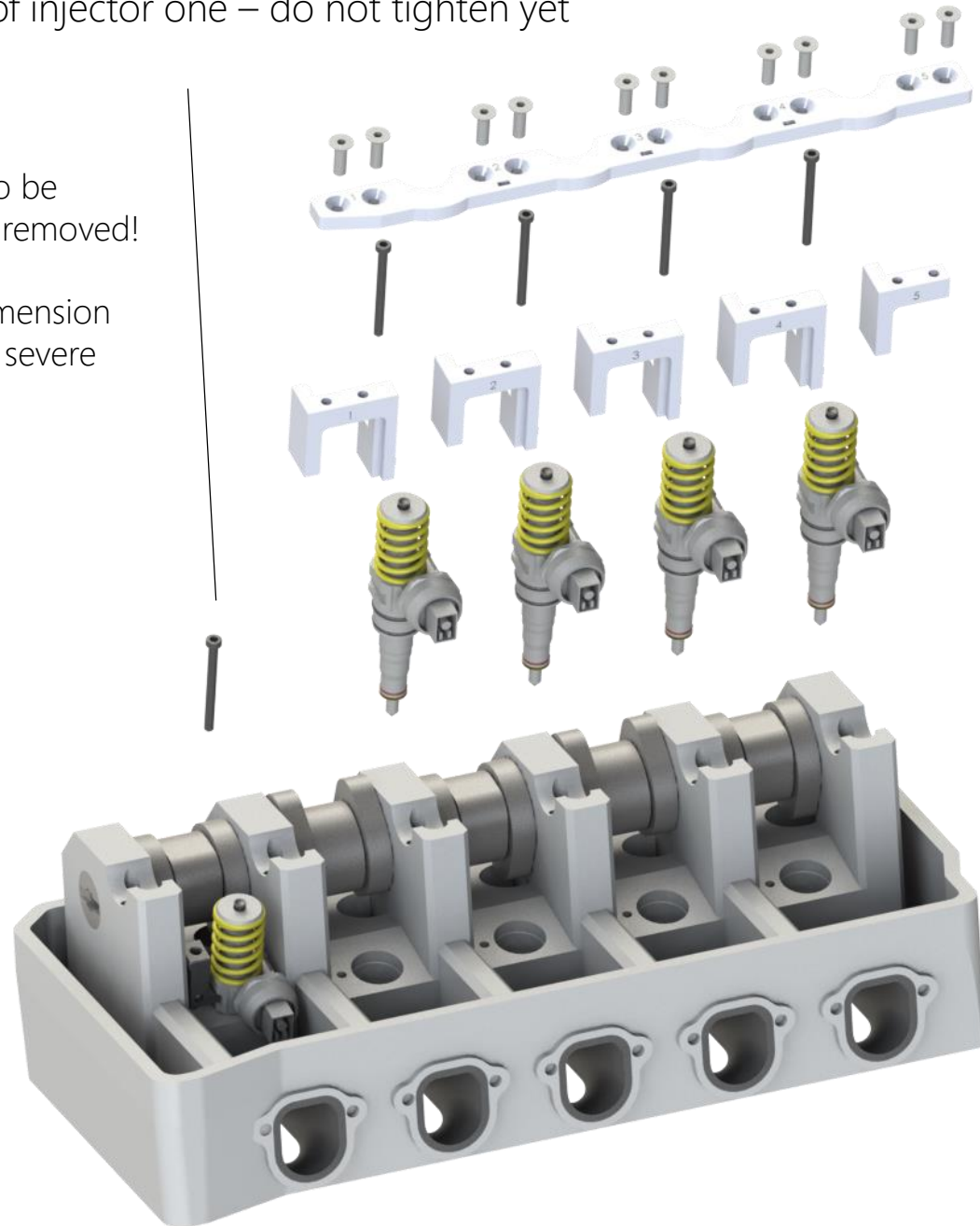
(pay attention to not damage the sealing rings – use oil to lubricate the rings while being mounted)



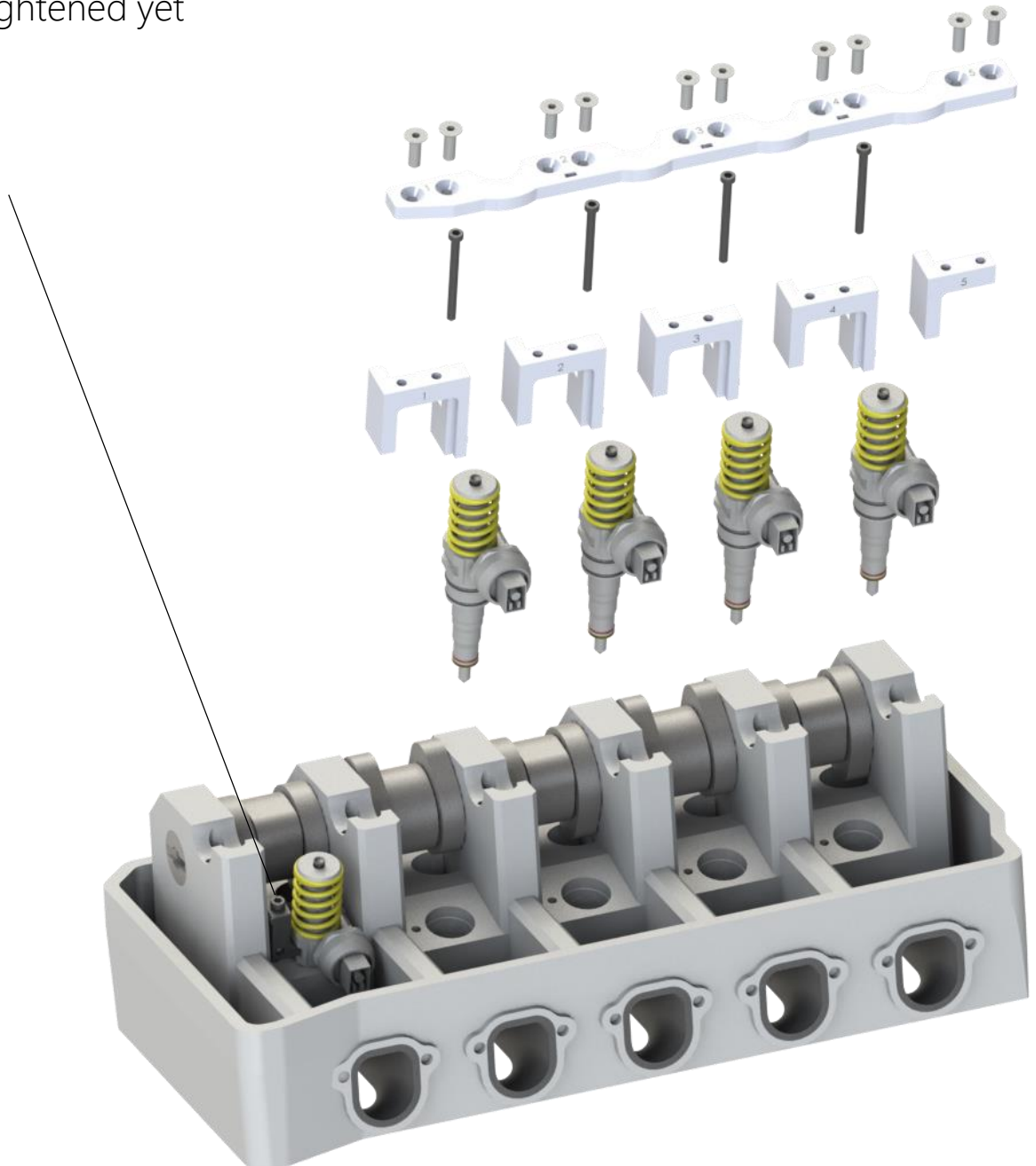
step 9: insert the expansion screw of injector one – do not tighten yet

-Warning: the expansion screws have to be replaced by new ones, once they were removed!

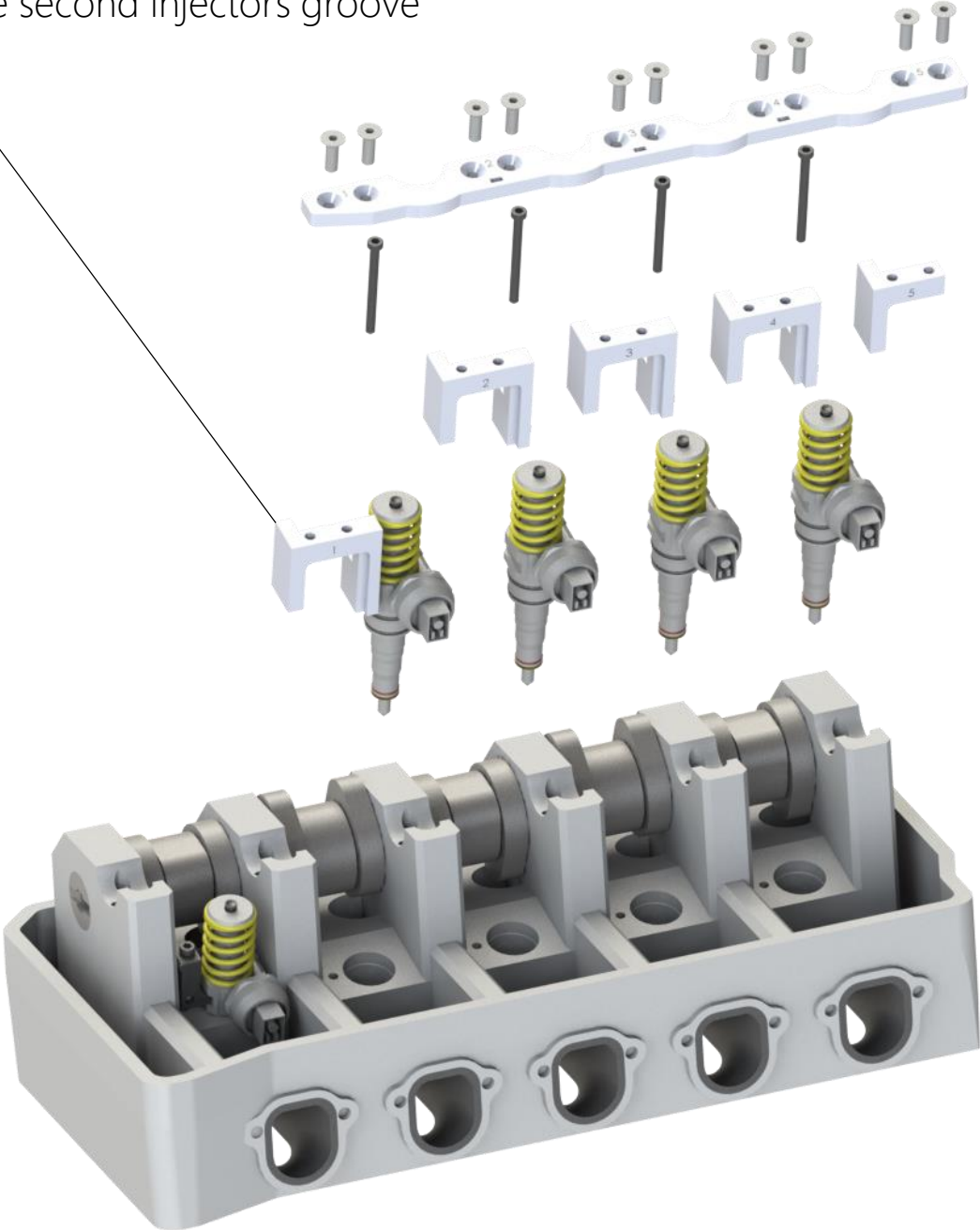
-Only use high quality screws of the dimension M6x55mm – longer screws can lead to severe engine damage!



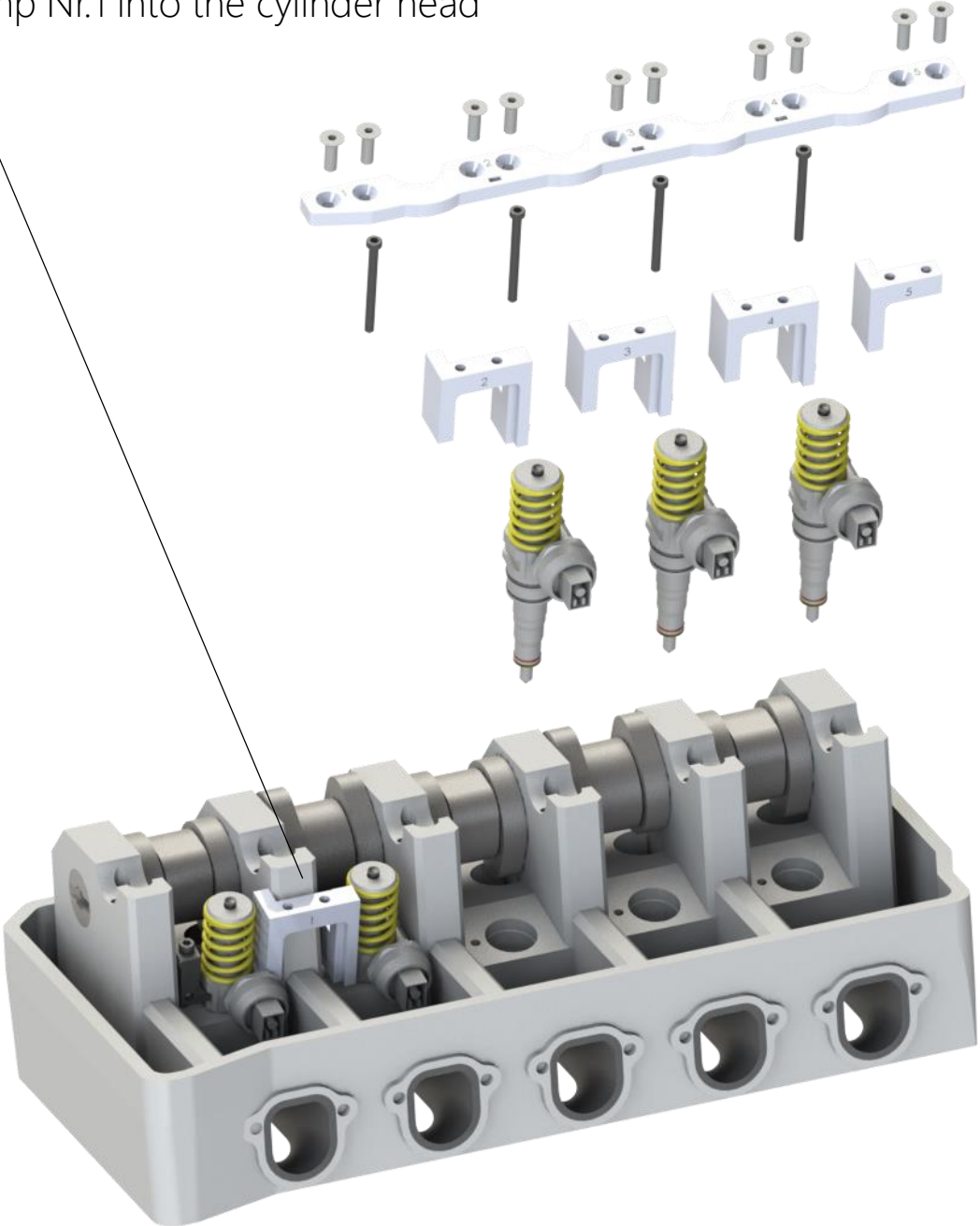
step 9: screw in place – not tightened yet



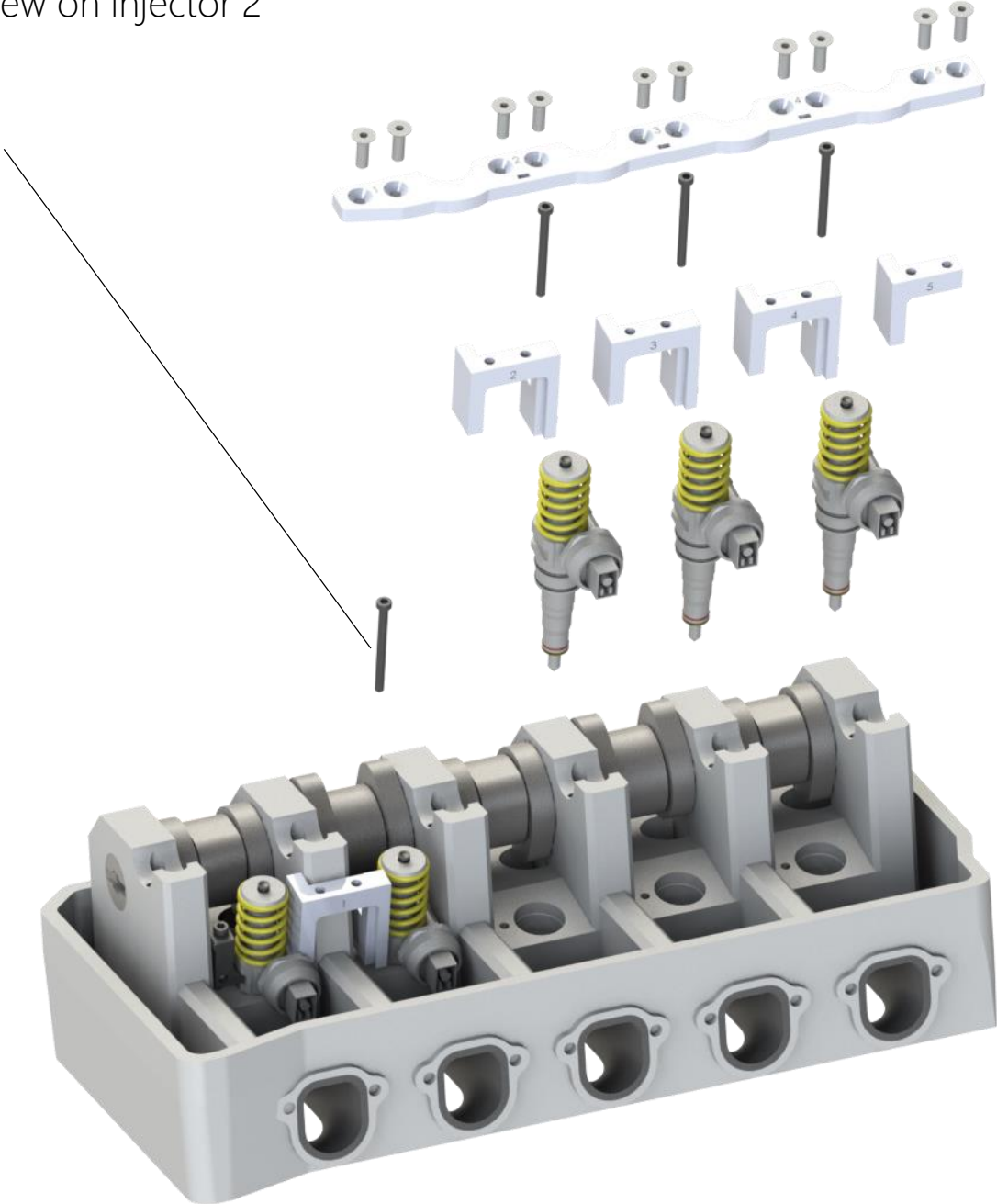
step 10: set part Nr. 1 in place on the second injectors groove



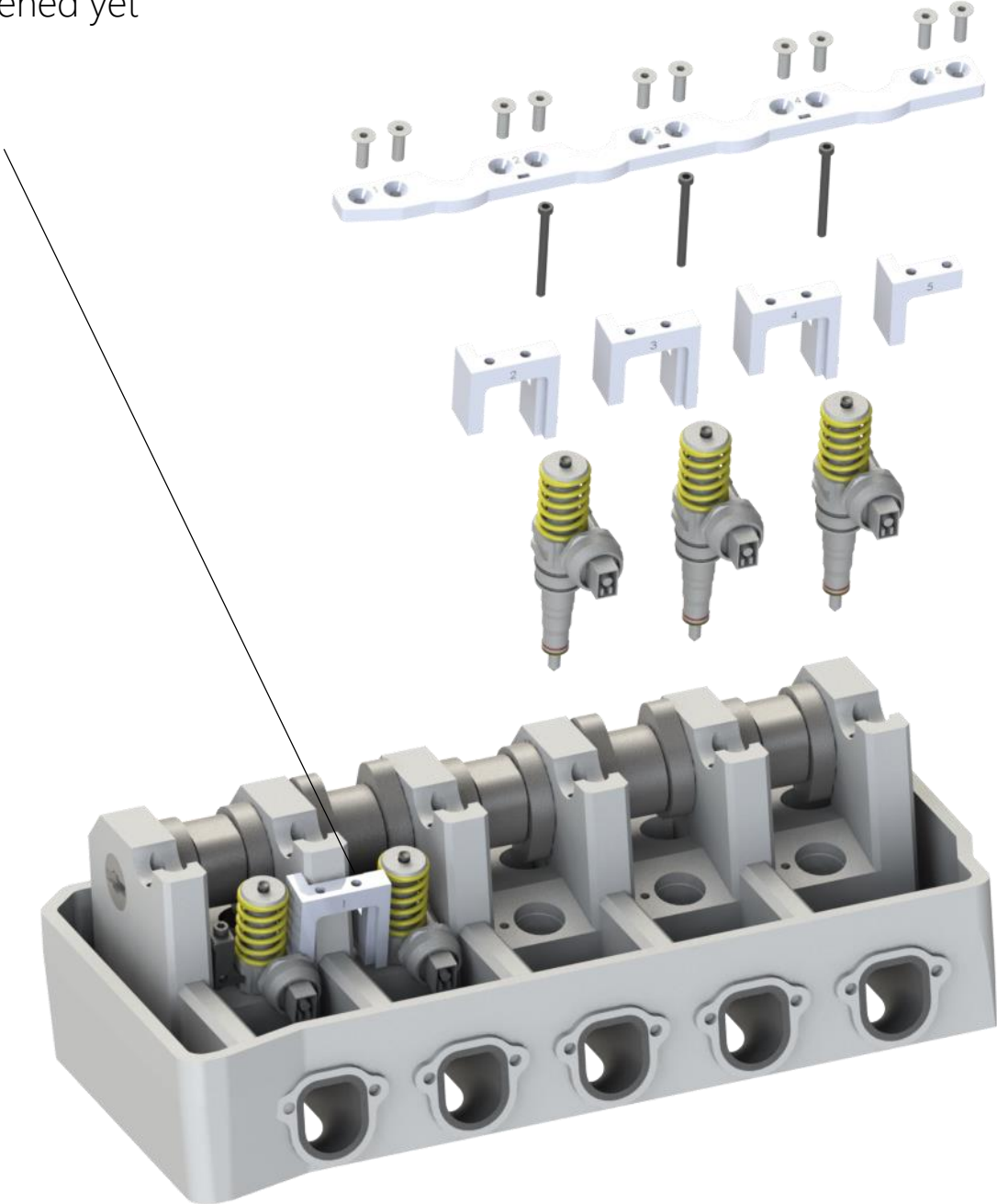
step 11: insert both injector and clamp Nr.1 into the cylinder head



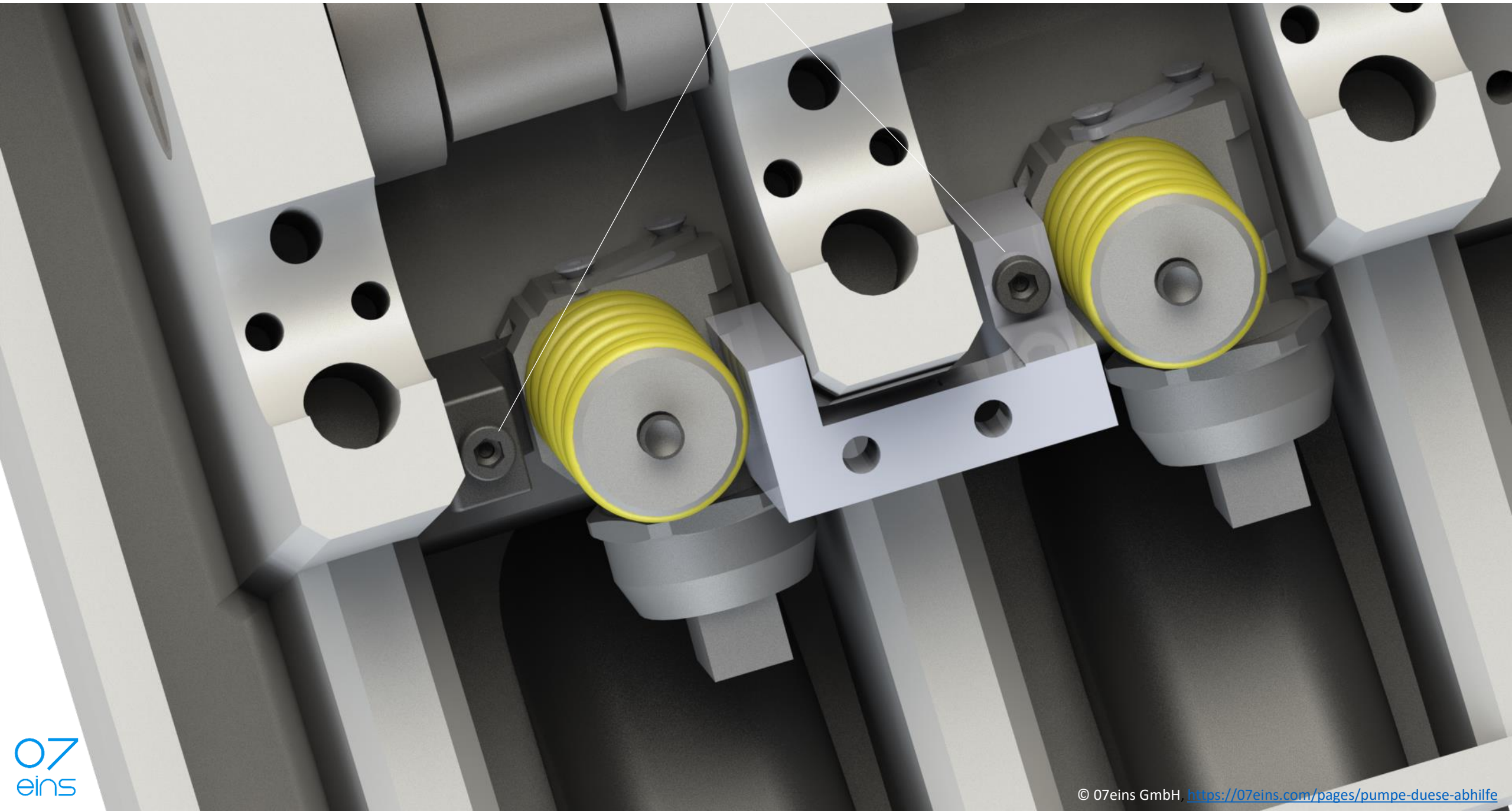
step 12: replace the expansion screw on injector 2



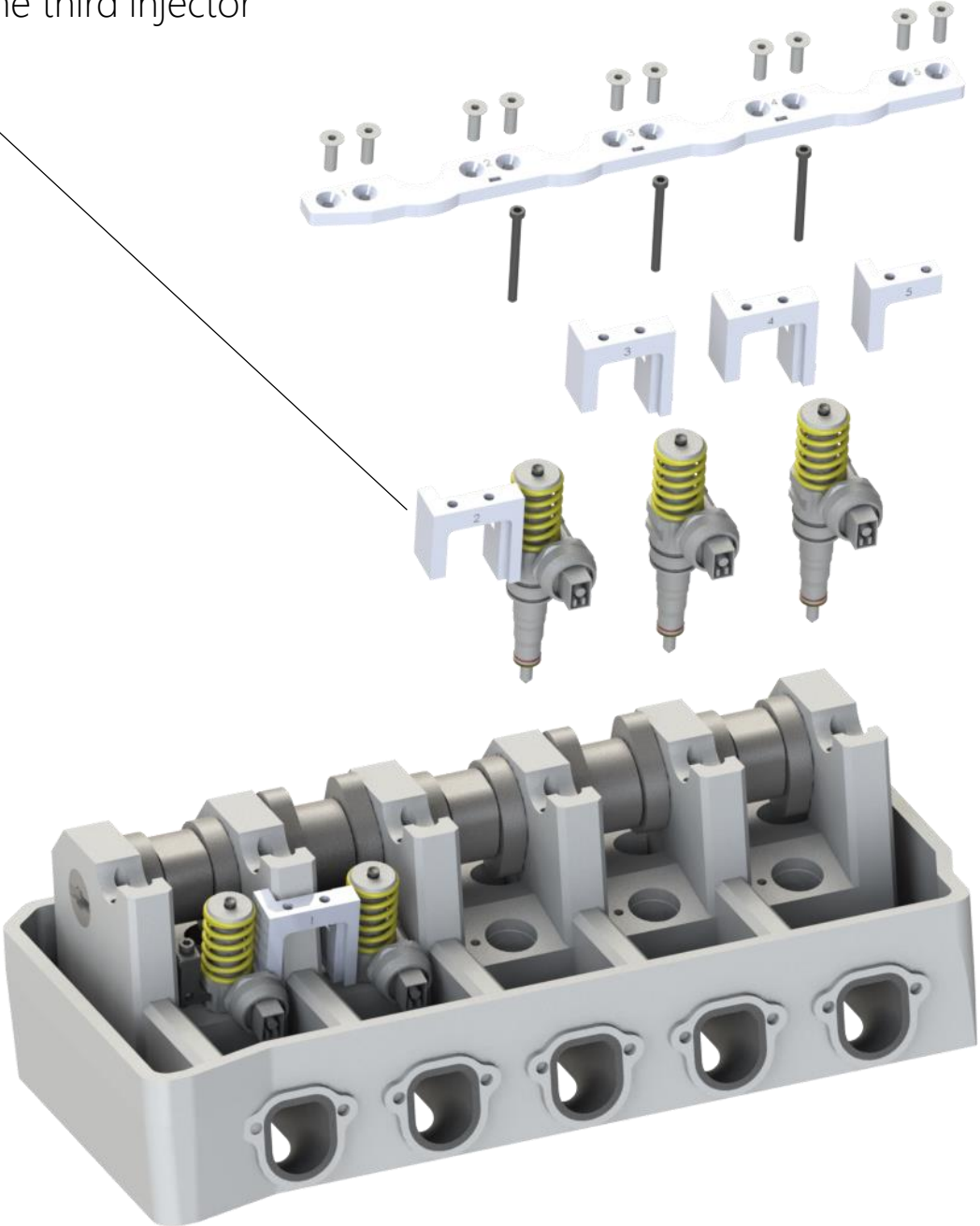
step 12: screw in place – not tightened yet



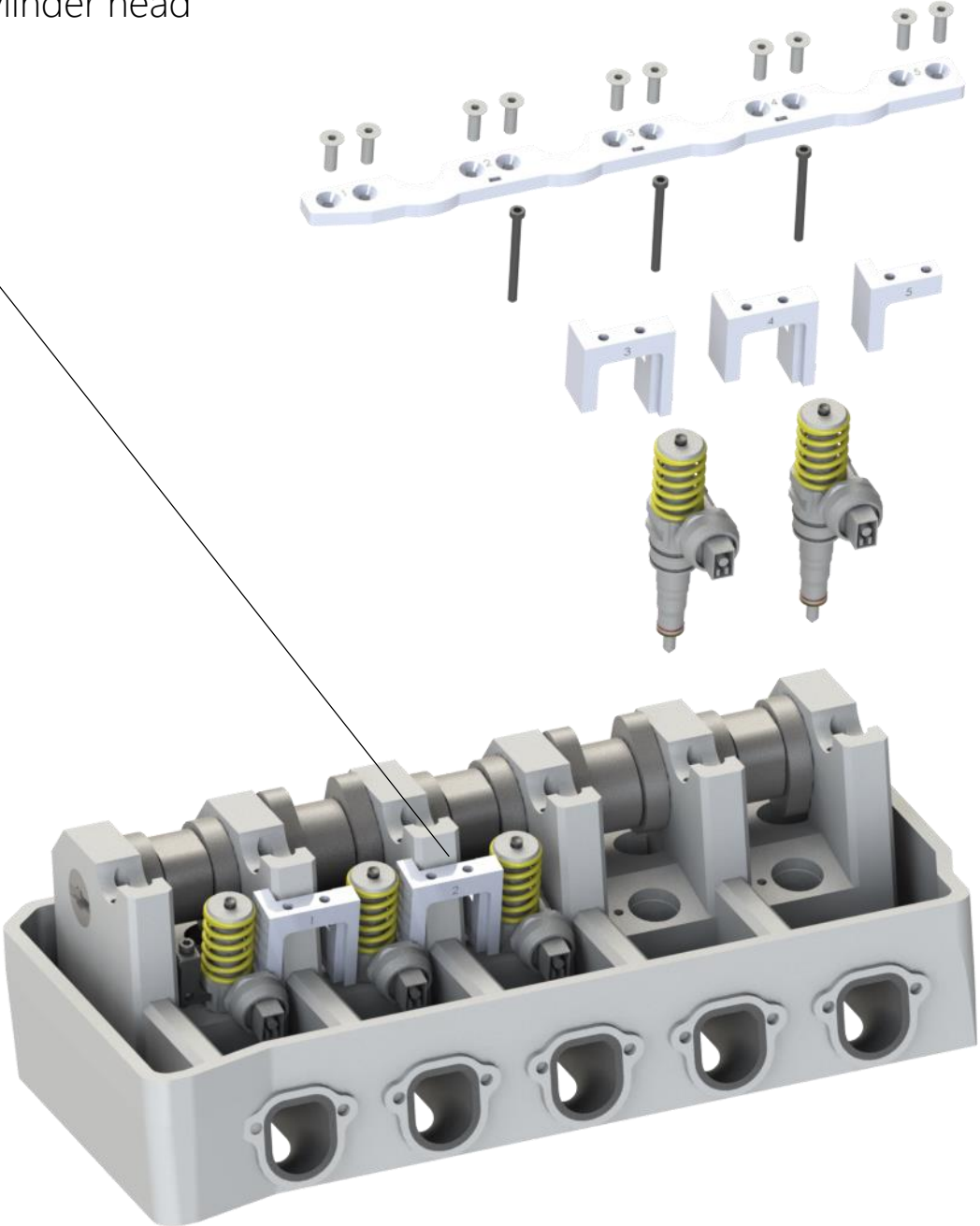
current status: injector 1 and 2 inserted, new screws mounted, not tightened yet



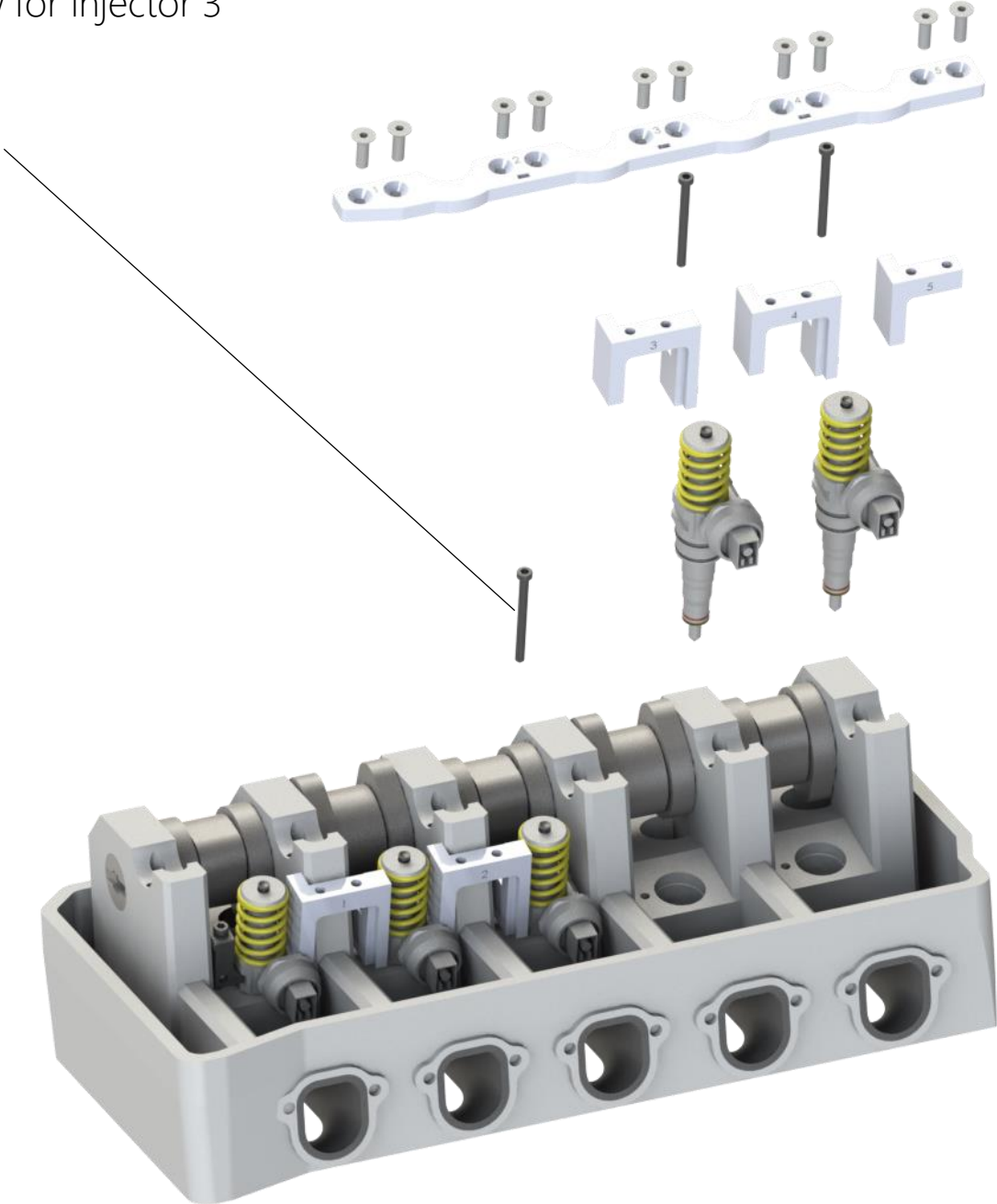
step 13: put clamp Nr.2 in place at the third injector



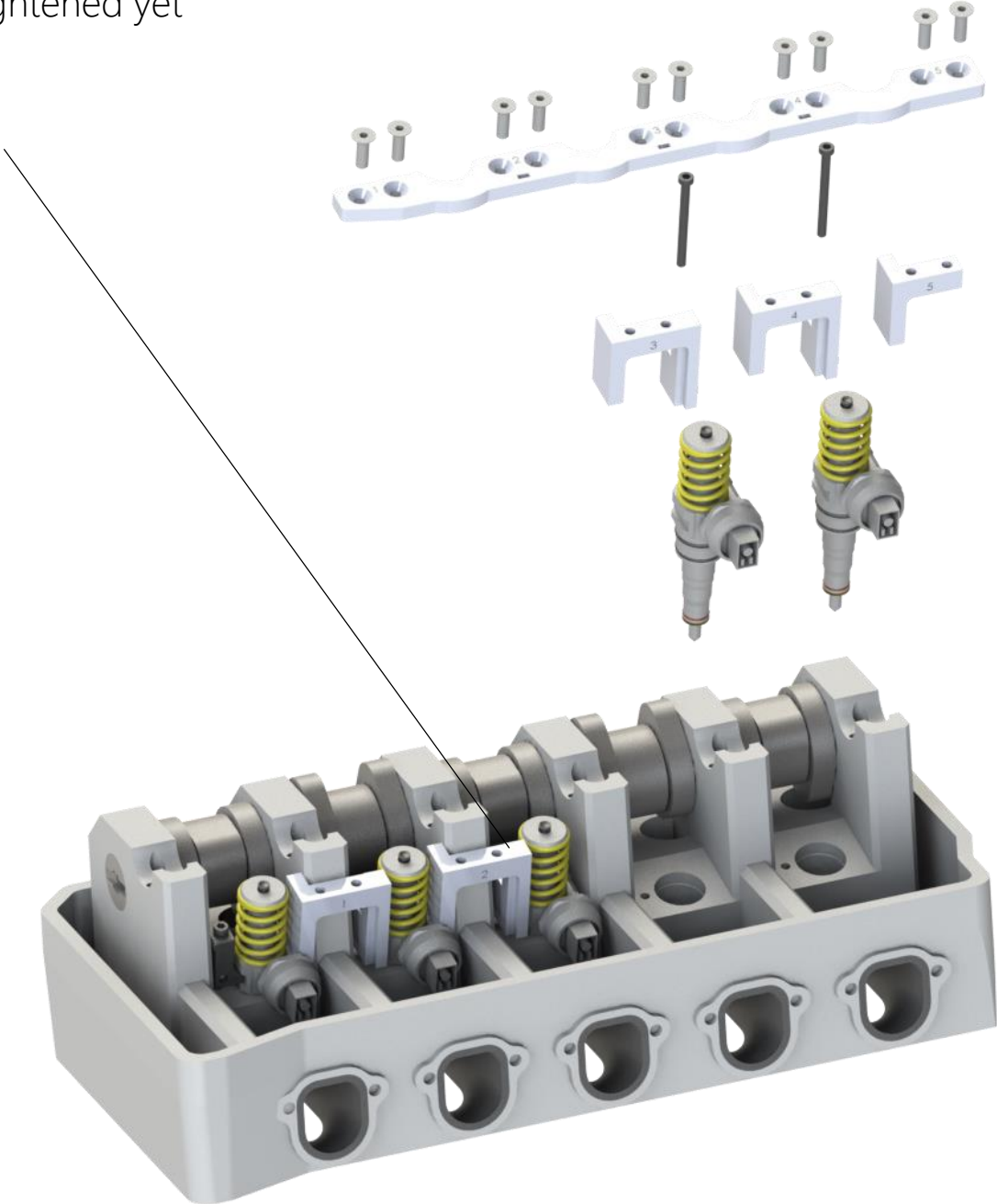
step 13: insert both parts into the cylinder head



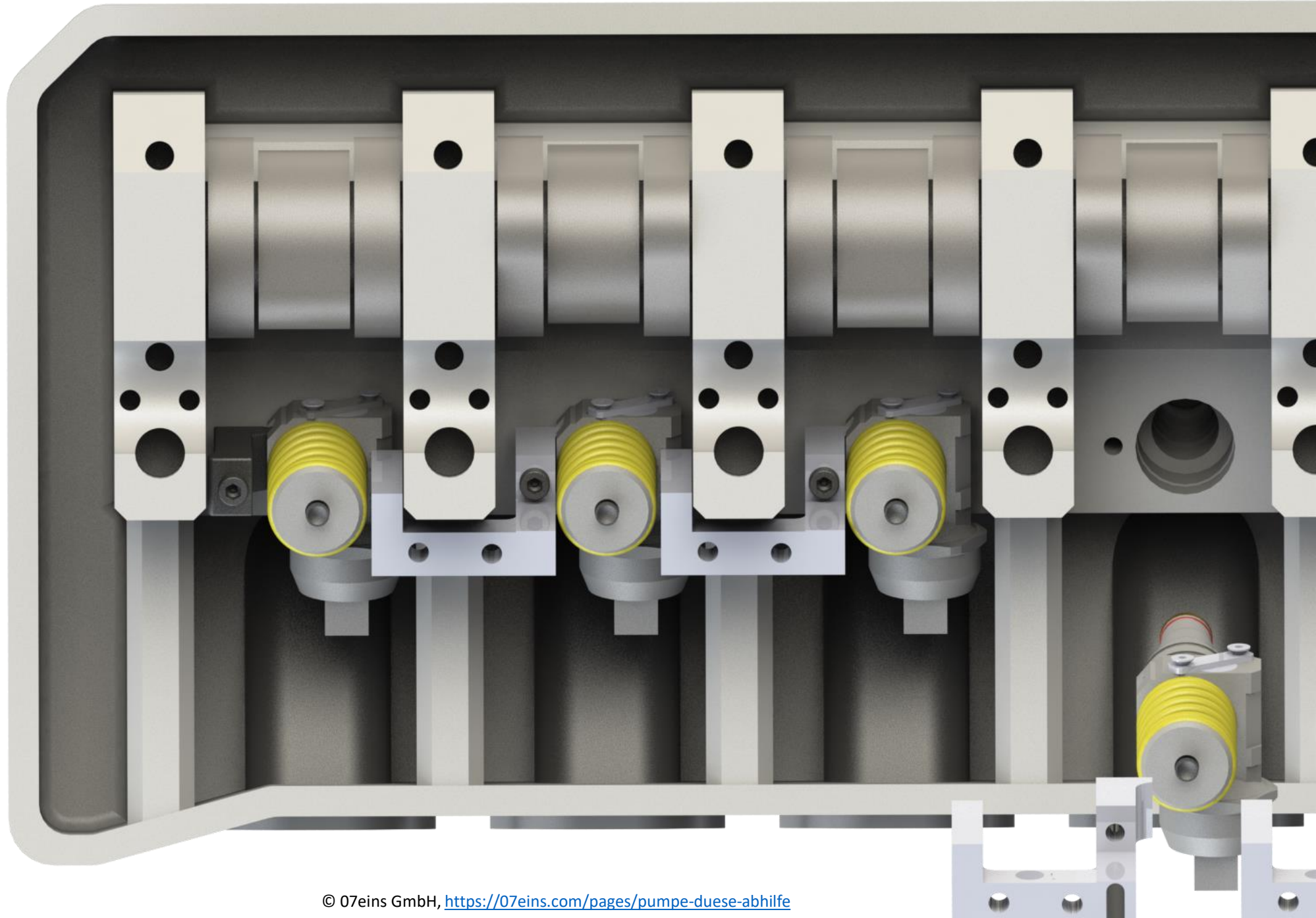
step 14: Use new expansion screw for injector 3



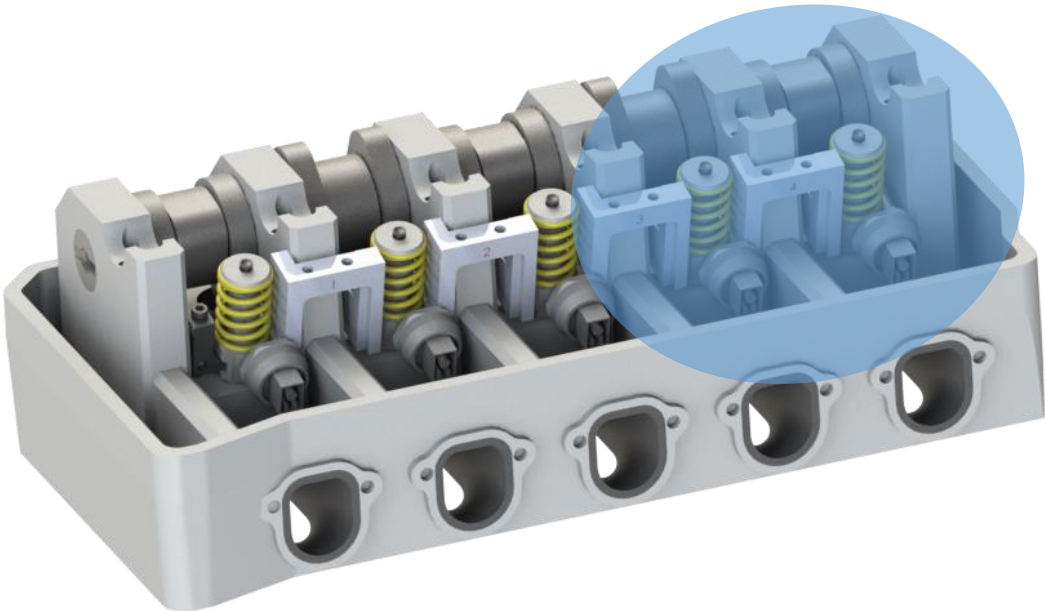
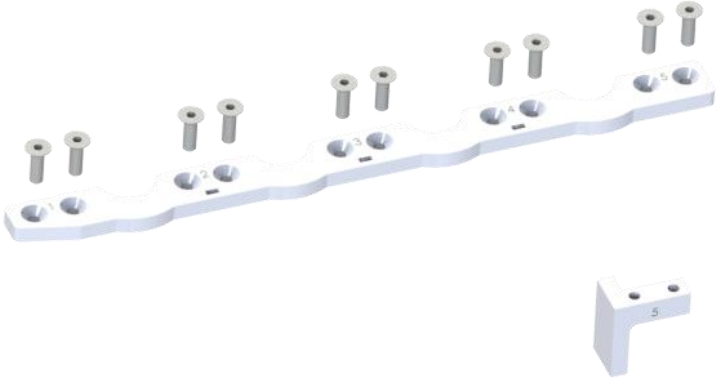
step 14: screw put in place, not tightened yet



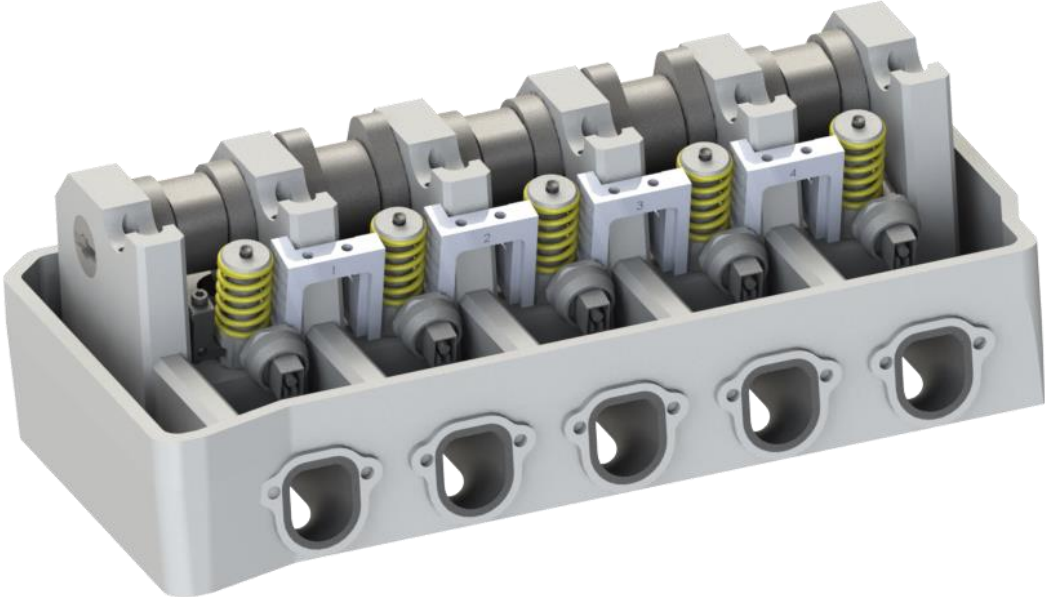
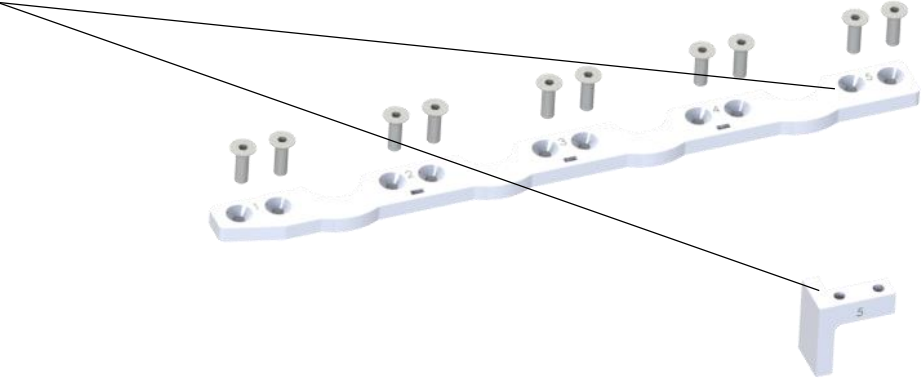
current status



step 15: repeat procedure for cylinder 4 & 5



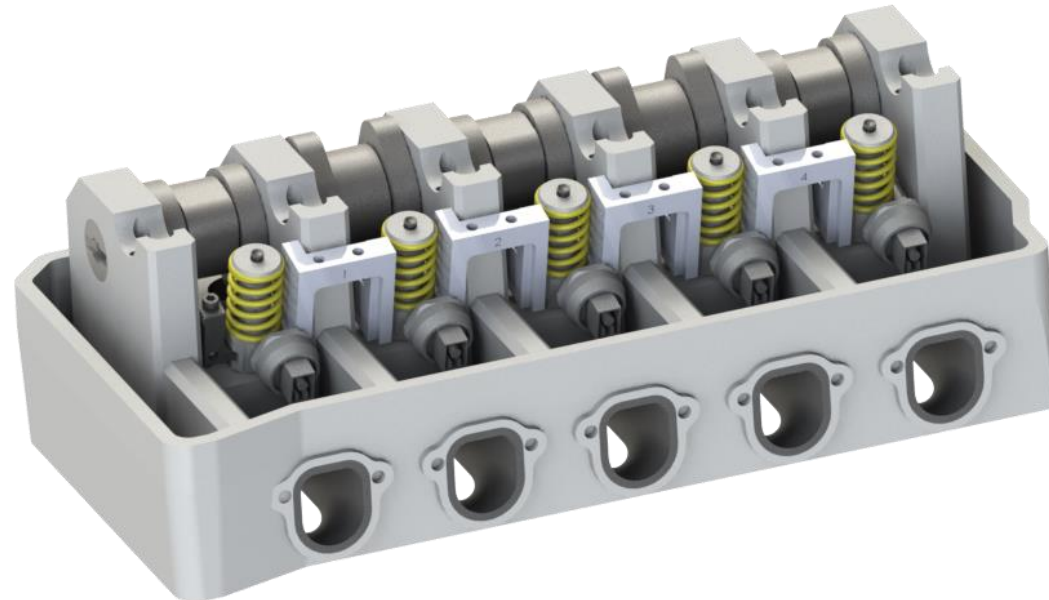
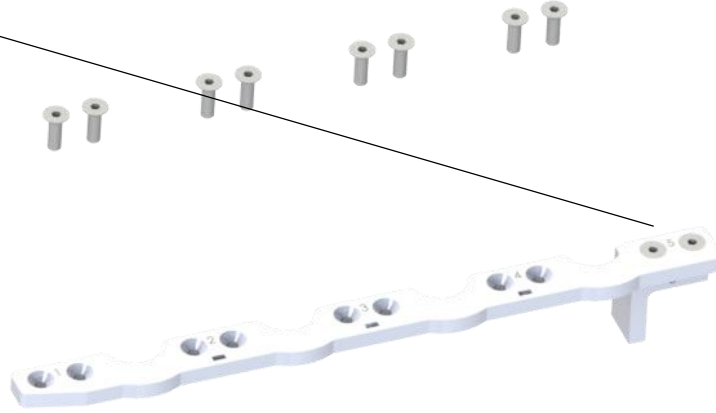
step 16: mount part Nr. 5 onto upper rail



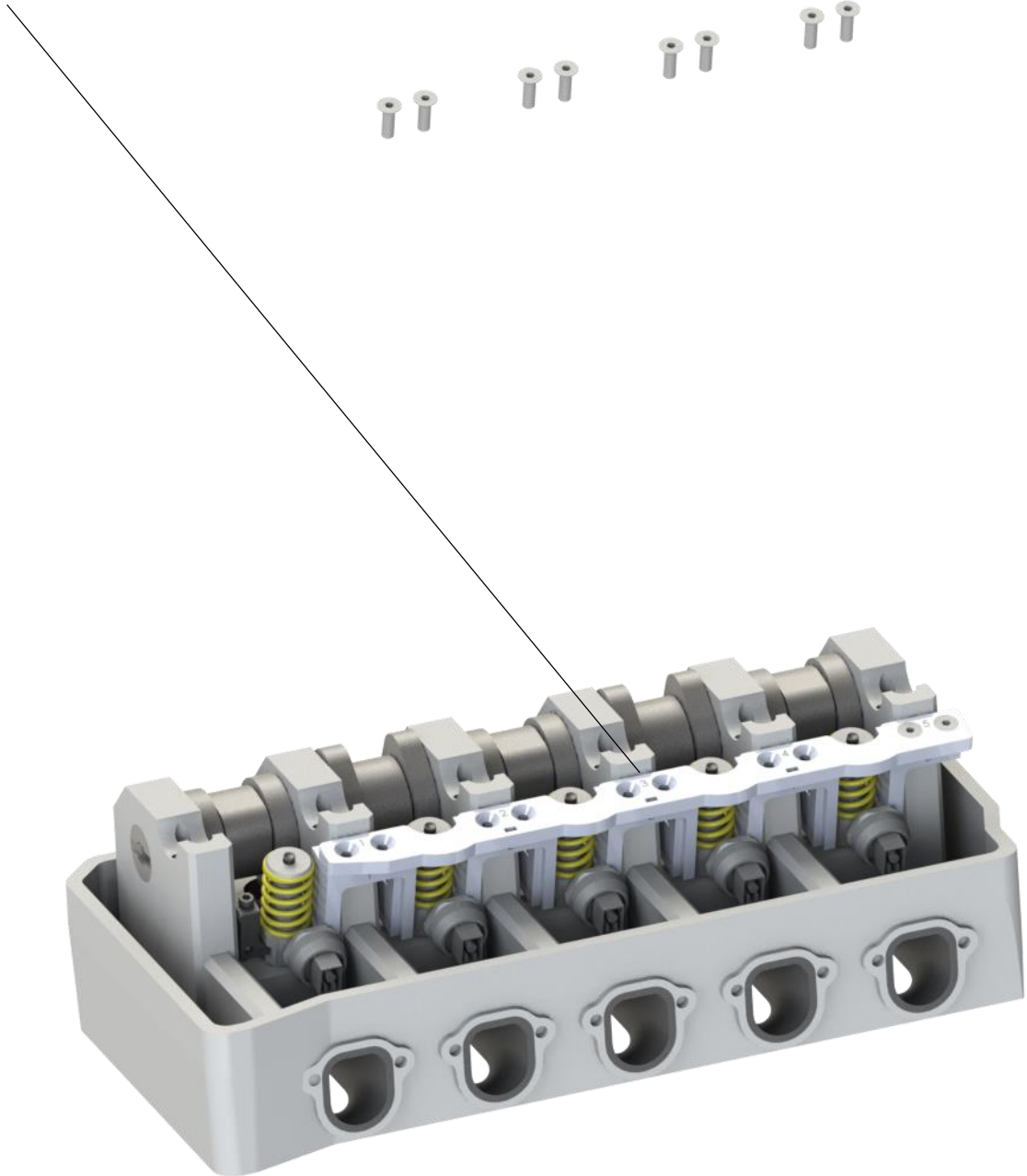
step 16: mount part Nr. 5 onto upper rail

-use of screw locking glue required!
(Loctite 270 or similar – temperature resistance >180°C)

- tightening torque: 20Nm



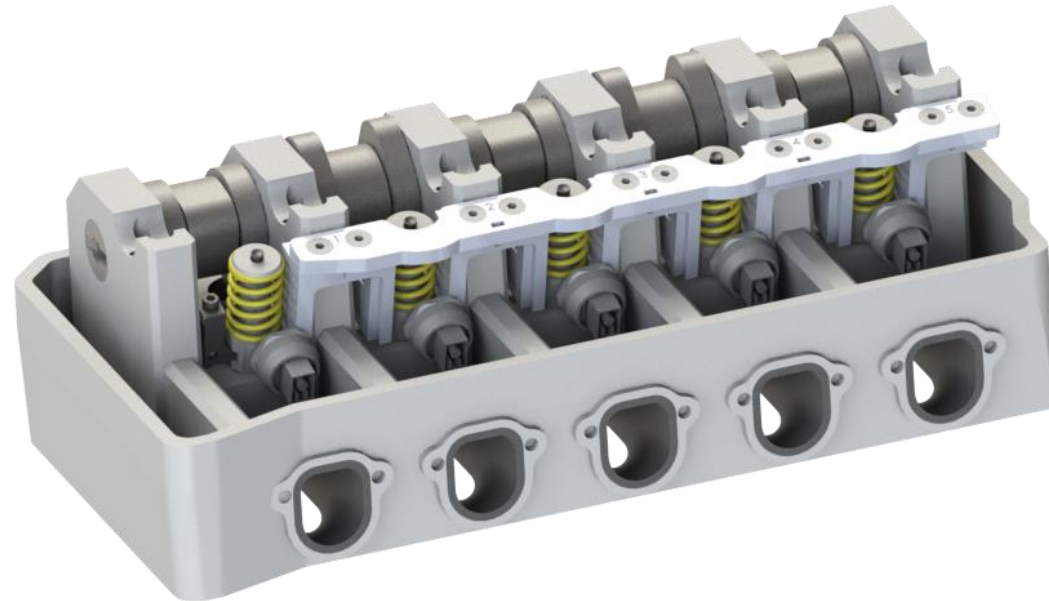
step 17: put upper rail in place



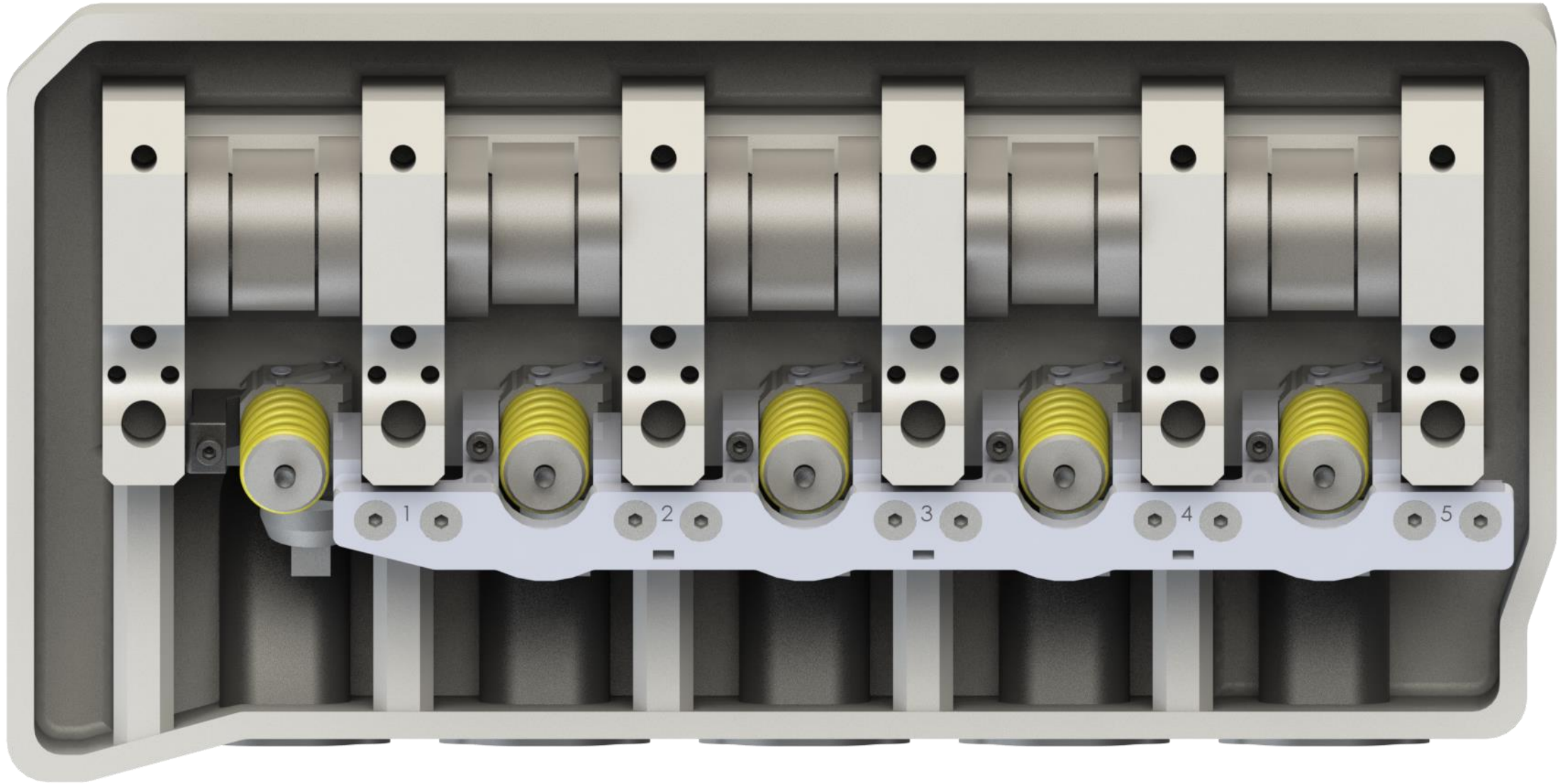
step 18: insert and tighten leftover screws

-use of screw locking glue required!
(Loctite 270 or similar – temperature resistance >180°C)

- tightening torque: 20Nm

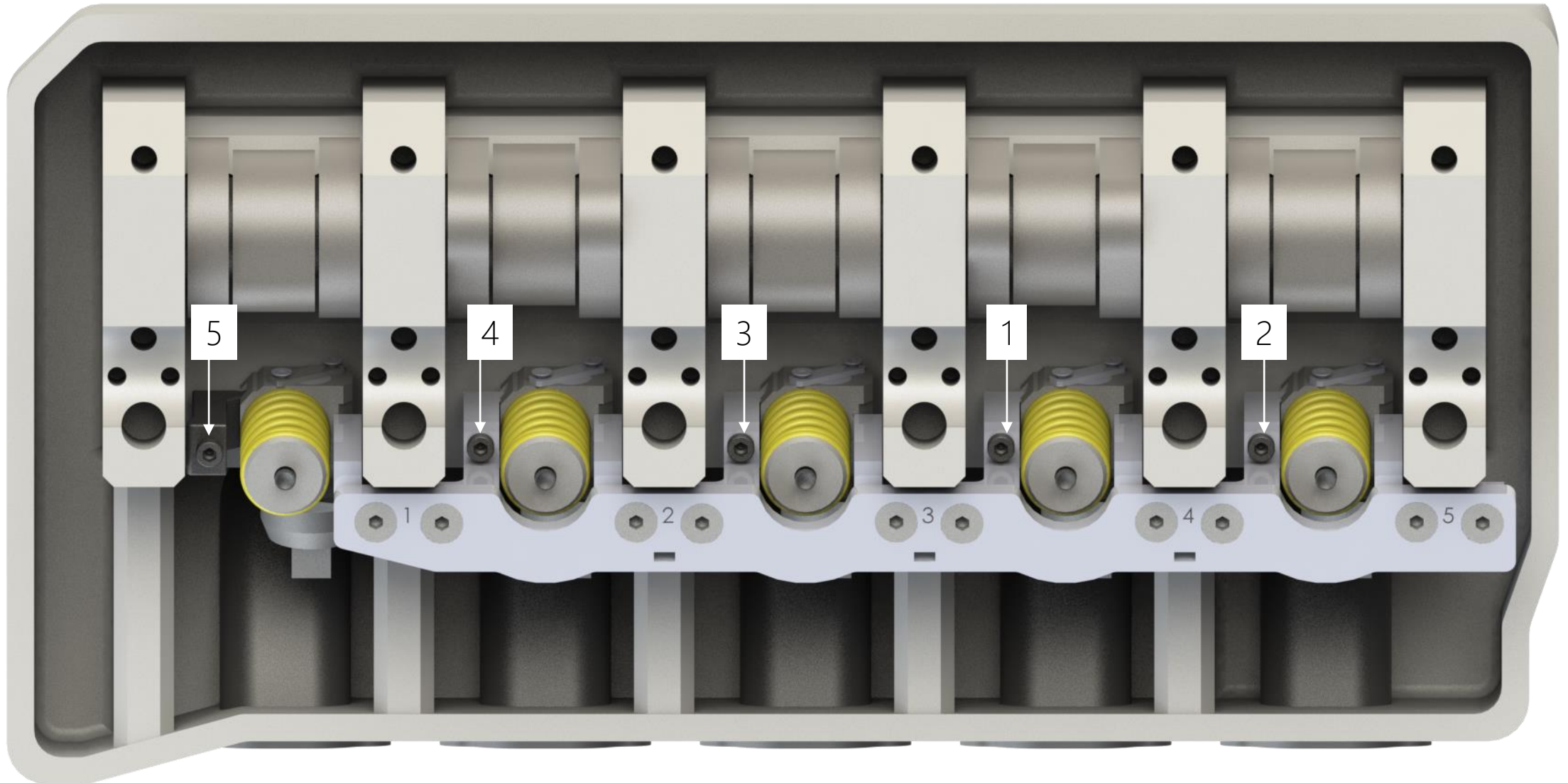


current status

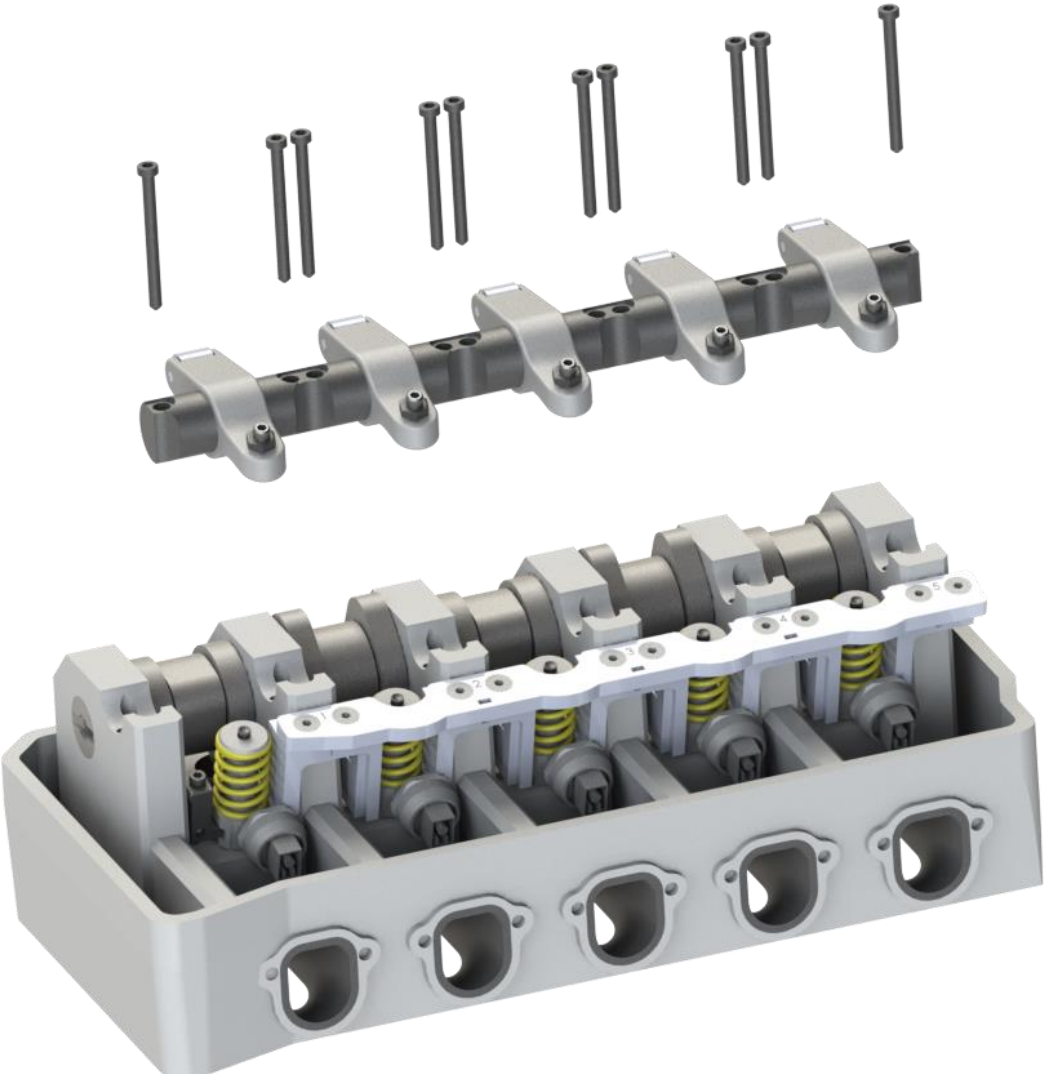


step 19: tighten injector expansion screws by torque and angle: 12 Nm + 270°

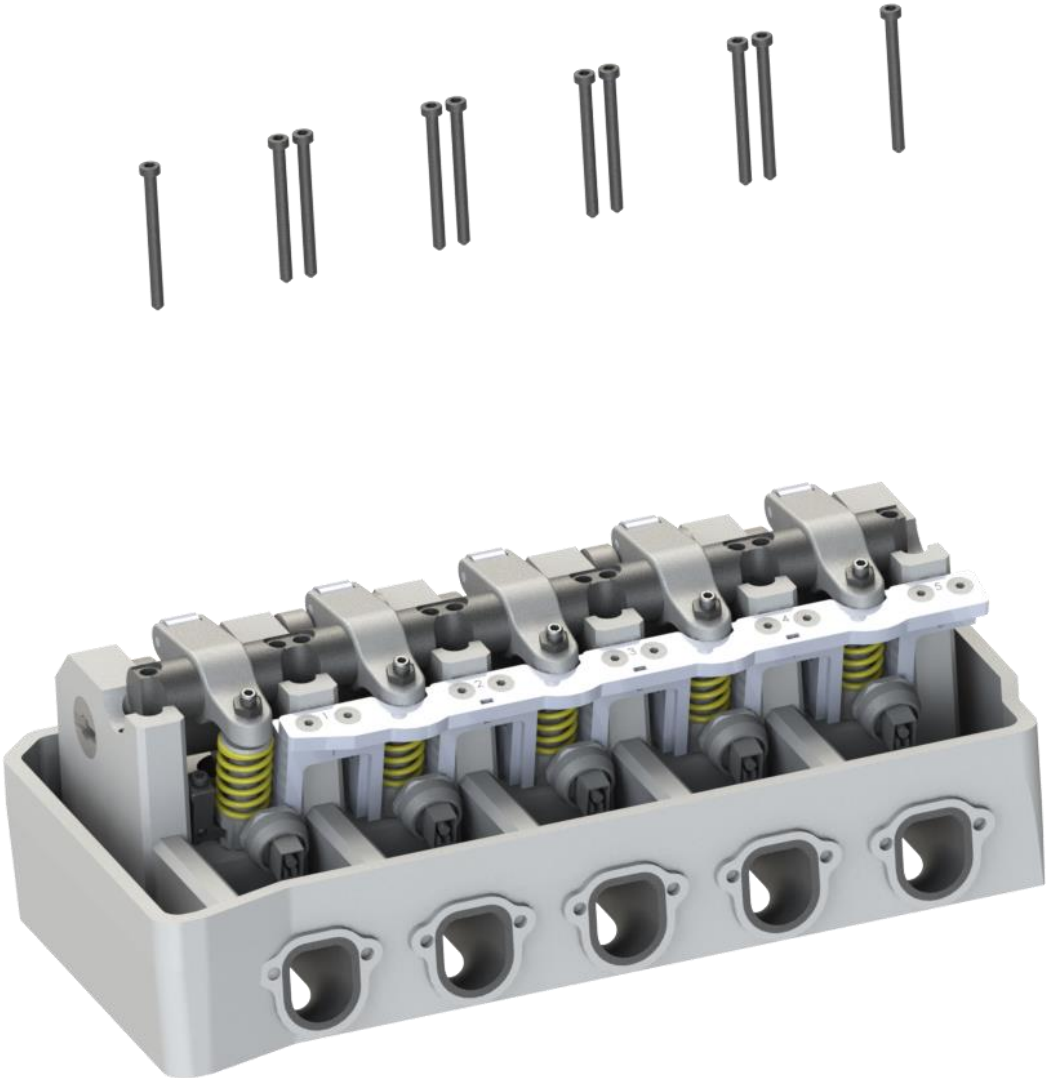
tighten in the shown order!



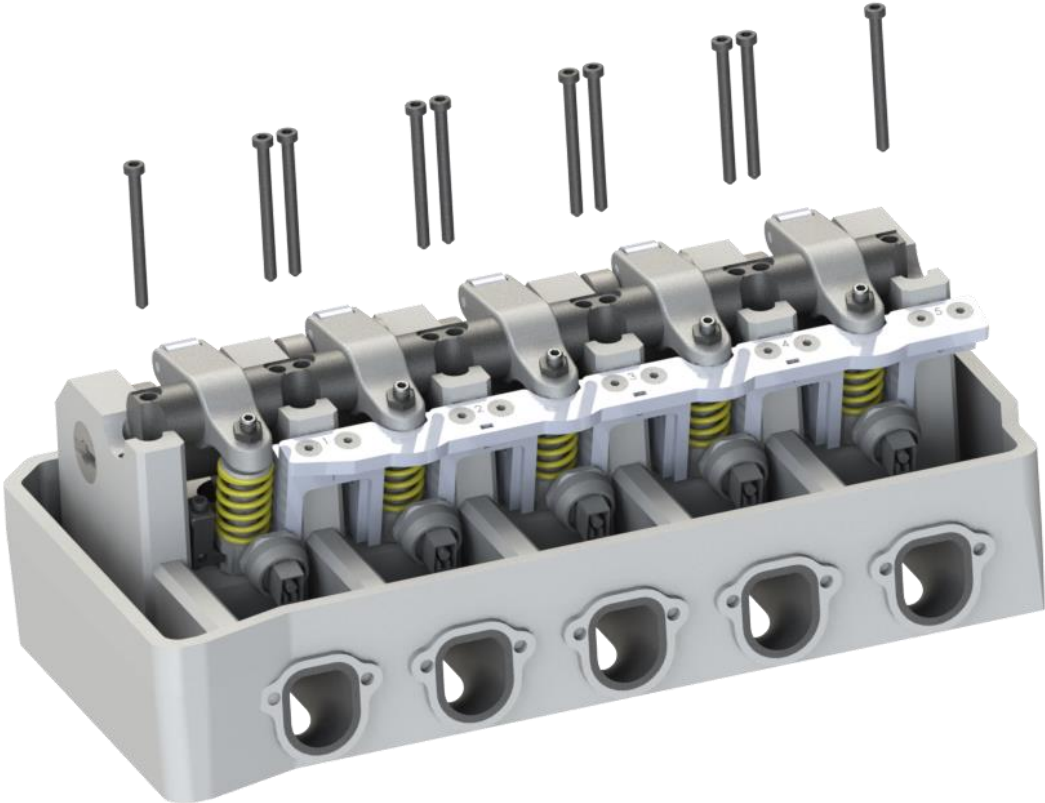
step 20: re-attach rocker arm shaft



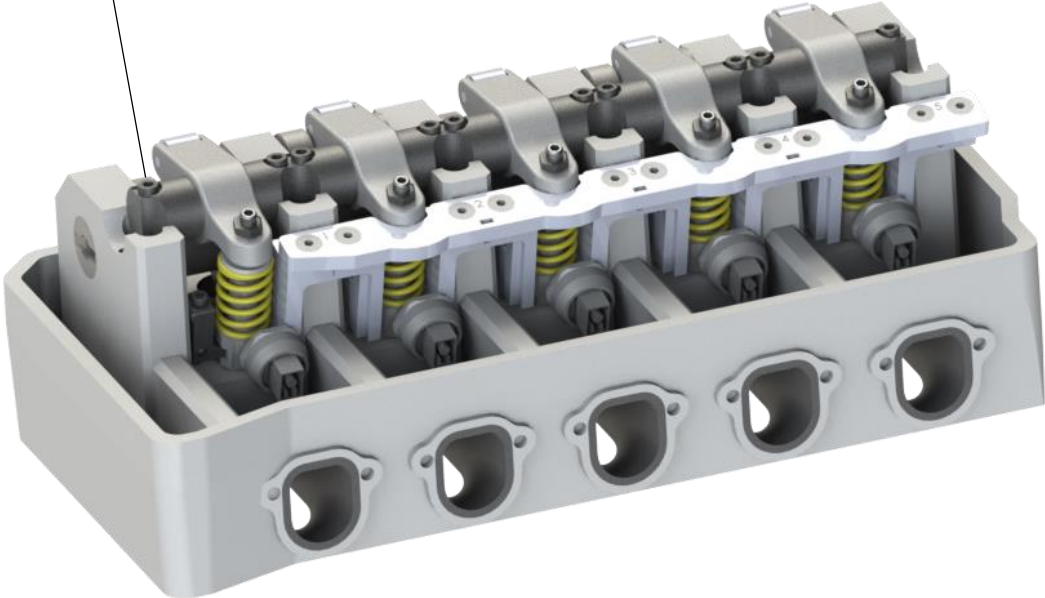
step 20: rocker arm shaft attached



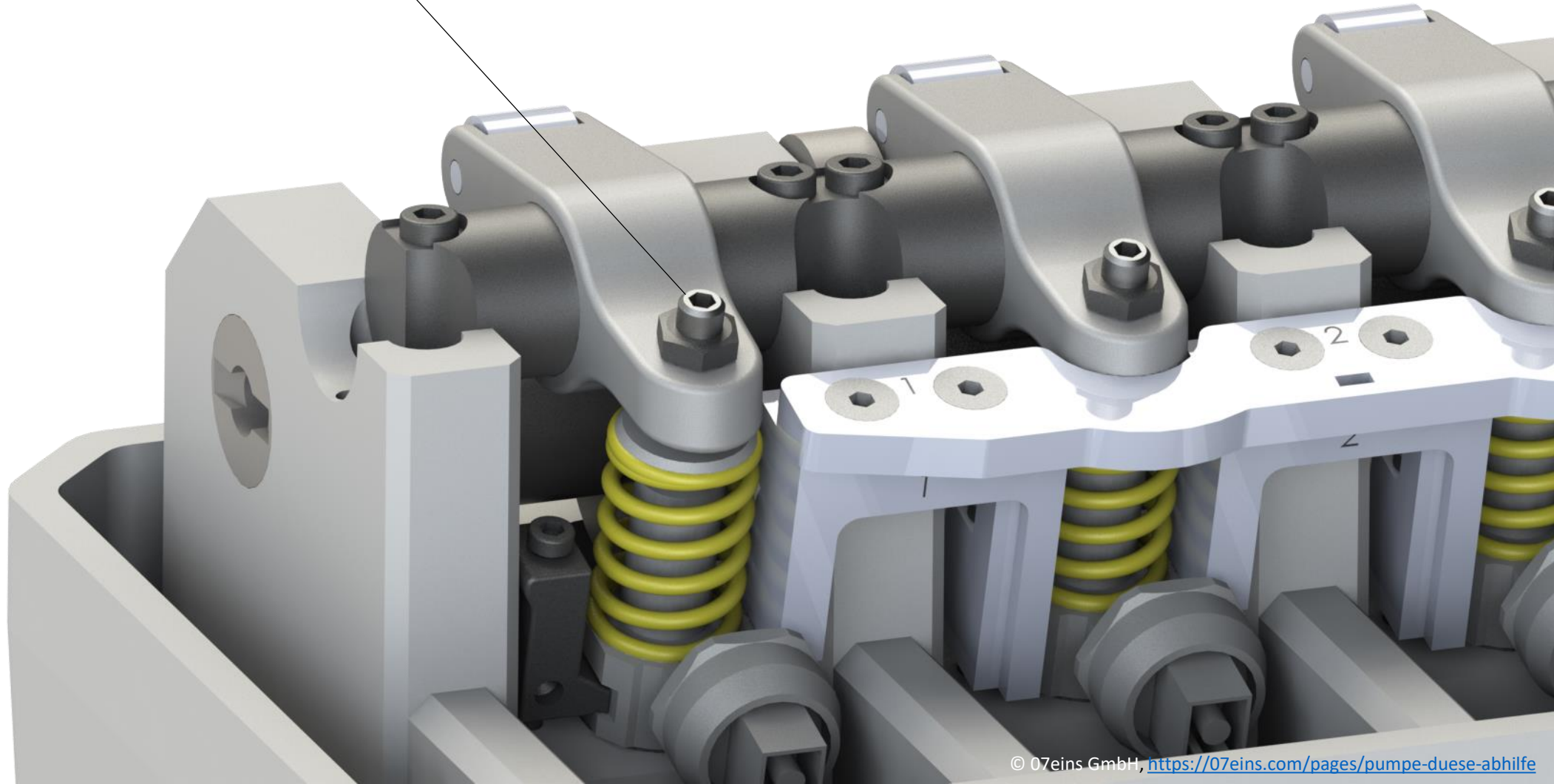
step 21: insert rocker arm expansion screws – new screws have to be used!



step 21: tighten rocker arm shaft screws by torque and angle: 20 Nm +90°

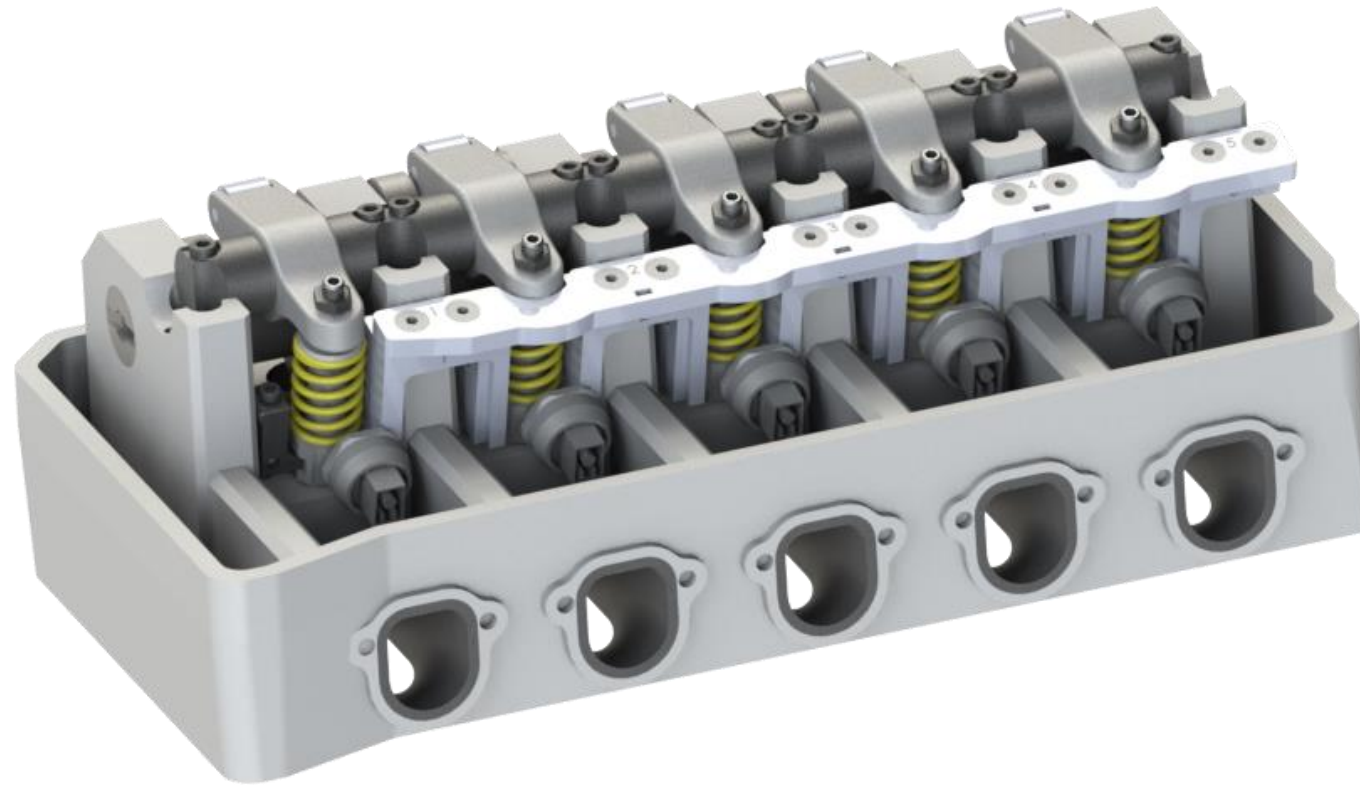


step 22: re-adjust rocker arm screws



reverse preparational steps:

- re-attach injector wiring harness
- re-attach valve cover
- mount exhaust-gas-recirculation-valve on top of valve cover
- mount air intake and intake manifold
- move front and radiator to standard position





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