



**Diesel Injector Seat Cutter Set**  
For use with BMW | Mercedes-Benz | PSA | Renault

# LASER®

Instruction

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Distributed by The Tool Connection Ltd

Kineton Road, Southam, Warwickshire CV47 0DR  
T +44 (0) 1926 815000 F +44 (0) 1926 815888  
info@toolconnection.co.uk [www.toolconnection.co.uk](http://www.toolconnection.co.uk)

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# Diesel Injector Seat Cutter Set – BMW | Mercedes-Benz | PSA | Renault

This set of four Diesel Injector cutters ensures that the injector seat is bored to the exact dimension when replacing or reconditioning the diesel injectors.

## Injector blow-by can be the cause of many problems on Common Rail Diesel engines including:

- Problems with starting
- Uneven tick over
- Lumpy running
- Hesitation on acceleration
- Smoke on tick over or acceleration
- Black tar around the injectors
- Chuffing sound from the engine when running

## These problems will affect the ECU and can cause over fuelling of the cylinder head.

Even after the diesel injector is removed, cleaned and a new copper washer fitted it may not always rectify the problem. Often the seat of the injector has been damaged due to constant erosion from escaping combustion gases. The only way to reface the seat is gently reface the seat in the cylinder head.

### Contents

Centring Pilot

T Handle Driver

Cutters:

17mm flat cutter with 19mm external diameter - Mercedes-Benz CRD

17mm angled cutter with 21mm external diameter - Fiat | Iveco

17mm flat cutter with 17mm external diameter - BMW | PSA | Renault

15mm flat cutter with 19mm external diameter - Other makes

## Copper Washer remover and installer kit now available. Laser Part No. 4702

### Instructions

Remove engine cowling and covers  
The sight you see may be frightening.

- Various products are on the market for cleaning the carbon from this area which not only makes the whole area look better but will assist with injector removal.
- Laser Tools have various Diesel Injector removal kits which help this task and invariably they include a sliding hammer and claws for sliding beneath the injector.
- Often the diesel injectors will need to be replaced as removal can be quite brutal.
- Remove the copper heat shield washer so that the cylinder seat can be cleaned.
- Again another tool for removing this copper washer is included in the Laser Specialist range of tools. Part No
- Select the size of seat cutter required
- Place the seat cutter in the injector recess and with a little downward pressure rotate in a clockwise direction for a few turns.
- Spray a small amount of lubricant on the teeth of the cutter to ensure a smooth finish.
- Remove the seat cutter and clean the aperture with compressed air or suction cleaner.
- Clean and inspect the seat.
- Continue gradually until you are left with a clean seat that will take the new copper washer seal.

### Refitting Injectors

- Leave the inlet plastic protective plugs on
- Remove the nozzle protective cap
- Paste the copper washer onto the injector nozzle using white grease (not Copper Slip Grease), making sure it is secure and will not fall off when replacing the injector into the recess.
- Smear the injector body with more white grease and insert into the seat.
- Re-fit the injector clamp and tighten to specifications.
- Continue with the remaining injectors.
- Allow the engine to tick over gently when first started.
- To check for blow-by, make a solution of dish washer soap and water and squirt this around the injector when the engine is ticking over.

