

Work Instructions



PSA DV6 / Ford DLD-416 Injector sleeve tool/ kit 60385420

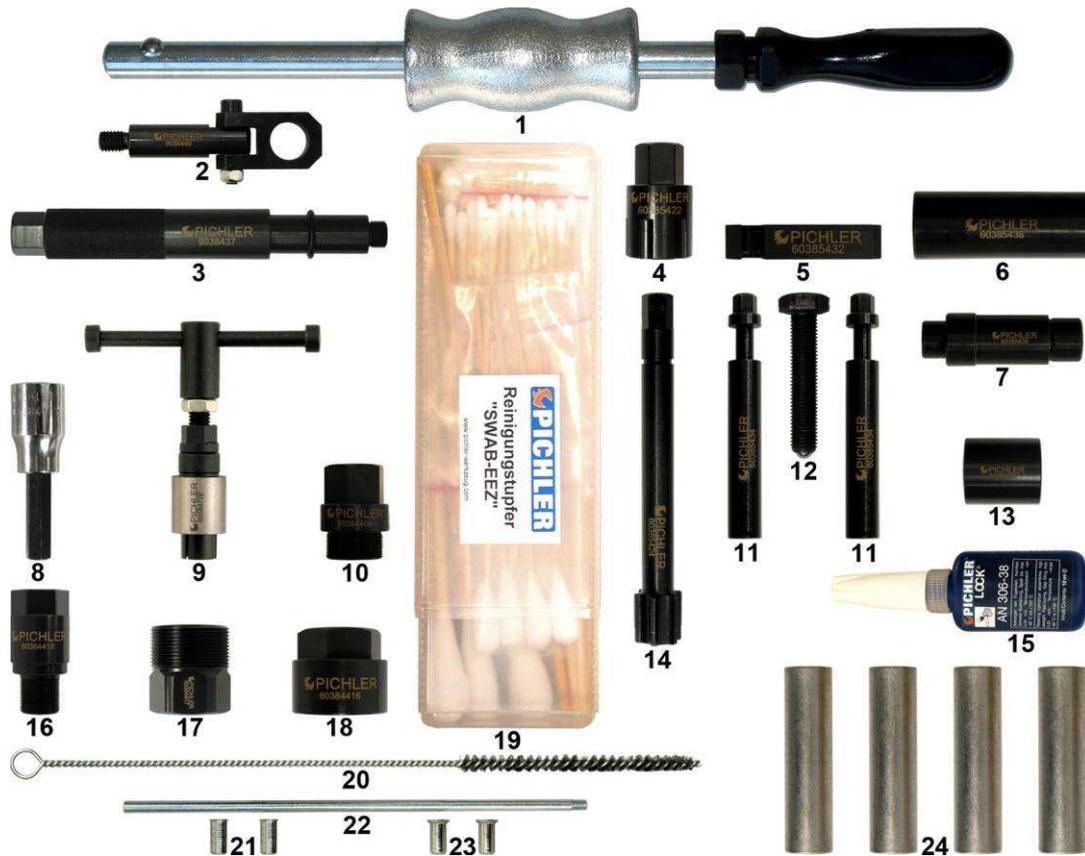
- Ford Focus II (DA_, DAW_, C-MAX), Fiesta V/ Fusion (JH_, JD_JU), 1.6 Duratorq-TDCi (66kW) HHDA, HHDB, HHJA, HHJB Focus II (DA_, DAW_, C-MAX) , 1.6 Duratorq-TDCi (80kW) G8DA, G8DB
- Citroën C4 (LA_, LC), Xsara Pic. (N68), C3 (FC_), Berlingo (MF) 1.6 HDi (66kW) 9HX (DV6ATED4), C3 (FC_), C4 (LA_, LC_, UA_, DU_), C5 (RC_, RE_) 1.6 HDi (80kW) 9 HY/HZ (DV6TED4)
- Peugeot 207 (WA_, WC_), 307 (3A7C, 3E), Partner (5, 5F) 1.6 HDi (66kW), 9HX (DV6ATED4) 206 (2D, 2A/C, 2E/K), 207 (WA_, WC_, WD_), 307 (3A/C, 3E/H) 1.6 HDi (80kW) 9 HY/HZ (DV6TED4)
- Volvo S40 (MS), V50 (MW), C30 1.6 D (80kW) D4164T
- BMW / Mini Cooper D (R56), Mini Clubman (R55) 1.6 D (80kW) 9HZ (DV6TED4)
- Mazda 3 (BK12/14) 1.6 DI Turbo (80kW) Y 601
- Fiat

Safety notice

- ▶ Be sure to read these instructions before assembling, during installation and throughout use.
- ▶ The application of the tools should only be carried out by qualified personnel.
- ▶ Always refer to the OEM manufacturer's instructions and service manuals for the latest data and to maintain the correct sequence.
- ▶ These work instructions and the recommended tools shown are meant to serve as aides only and are by no means a guarantee for certain results. In some cases, due to insufficient space the engine or the cylinder head will need to be removed.
- ▶ This tool kit is a special collection and it has been tested and used successfully on several occasions.
- ▶ It is of the utmost importance to maintain the correct sequence as per the instructions.

Pictograms and their meaning:

	special caution or attention
	hint or recommendation



Nr.		Description	60385420
1	1030210	Slide Hammer 1200g	1
2	9038440	Swivel Joint For Loosening Lever And Slide Hammer	1
3	9038437	Loosening Lever	1
4	60385422	Cleaning Cutter and Guide For 60385424	1
5	60385432	Bridge	1
6	60385438	Press Fit Sleeve	1
7	60385436	Seal and Injector Sleeve Drift	1
8	60384172	Pilot Valve Socket 10 With Hole	1
9	6038472E	Injector Needle Extractor	1
10	60384408	Extraction Adapter For Siemens Injectors	1
11	60385434	Support Leg	2
12	6582262	Bridge Bolt	1
13	60385439	Centralising Ring	1
14	60385424	Cleaning Cutter	1
15	60385429	Sealant and Adhesive AN 306-38 10ml	1
16	60384414	Extraction Adapter For Bosch Injectors	1
17	60384417	Sleeve Adaptor For Bosch Injectors	1
18	60384413	Box Nut Adaptor For Bosch Injectors	1
19	9495291	Cotton Bud Swabs "SWAB-EEZ" Set	1
20	9049027	Pipe Brush 300/100x7,5mm	1
21	60390082	Sealing Plugs Ø8mm	2
22	60390081	Setting Tool For Sealing Plugs	1
23	60390102	Sealing Plugs Ø10mm	2
24	60385427	Injector Sleeve PSA DV6	4

Assembly instructions

1 Preparation

- 1.1 Remove the plastic cover with camshaft housing vent.

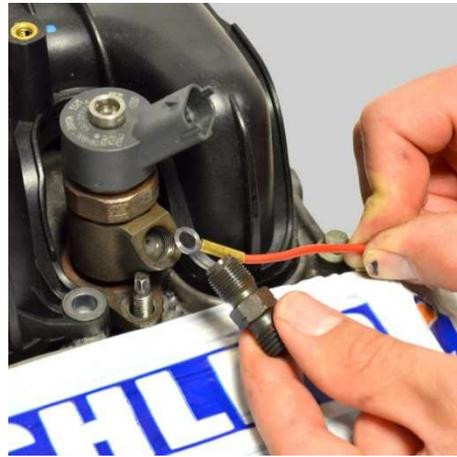


- 1.2 Seal all openings with tape or similar and remove with a slotted screwdriver and a vacuum cleaner, the dirt and carbon deposits around the injector.



2. Removing the injector by the thread of the fuel line connection

- 2.1 Remove the diesel connector on the injector with a suitable spanner 13. Remove the sealing ring, behind the diesel connection, with a magnet or the like.



- 2.3 Screw the Loosening Lever 9038437 with Swivel Joint 9038440 in the bore of the diesel connector.



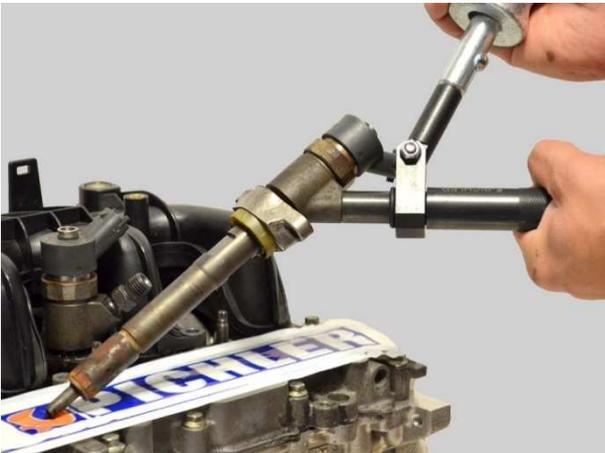
Important! Tighten the Loosening Lever well with a spanner 17.



2.4 Screw the slide hammer 1030210 on the Swivel Joint 9038440.



2.5 Remove the injector by jolting the Loosening Lever and simultaneously hitting with the slide hammer.



After successfully removing the injector from the cylinder head, it is possible that the injector sleeve is also pulled from the cylinder head.



injector sleeve



3. Removing the injector by 8KG slide hammer or by hydraulics

3.1 Injector dismantling

3.1.1 Bosch injector

Remove the solenoid valve with a spanner or ratchet with a split socket 30 or 29 or water pump pliers (not included in the set).



When removing the solenoid valve, loose parts such as springs, washers may fall out!!



Remove the loose small parts with a magnet, so that only the hexagon screw is visible.



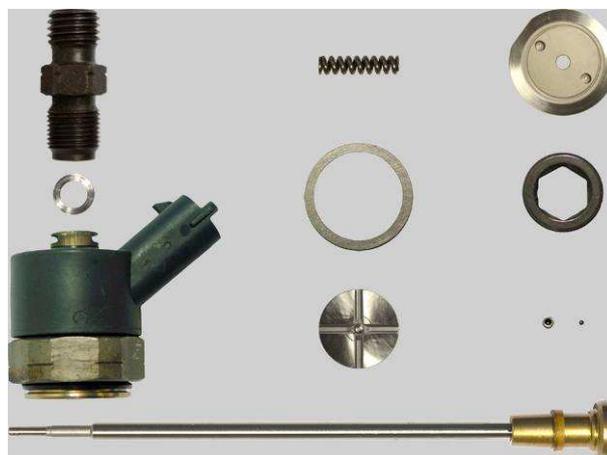
Unscrew and remove with the Pilot Valve Socket 60384172 and a ratchet $\frac{1}{4}$ " the hexagon screw.



Push the injector needle extractor 6038472E in the injector. Tighten the hex nut with a spanner 14 and extract the injector needle.



Parts which were removed during disassembling the Bosch injector.



3.1.2 Siemens injector

Remove the solenoid valve with a spanner or ratchet with a split socket 25 or water pump pliers (not included in the set).



3.2 Mounting the extraction adapters

3.2.1 Bosch injector

Screw the Extraction Adapter for Bosch injectors 60384414 in the injector and tighten it with a suitable spanner 22.



Screw the Sleeve Adaptor 60384417 on the thread for the solenoid valve and tighten it with suitable spanner 32.



Screw the Box Nut Adaptor 60384413 on the Sleeve Adaptor and tighten it with suitable spanner 32.



3.2.2 Siemens injector

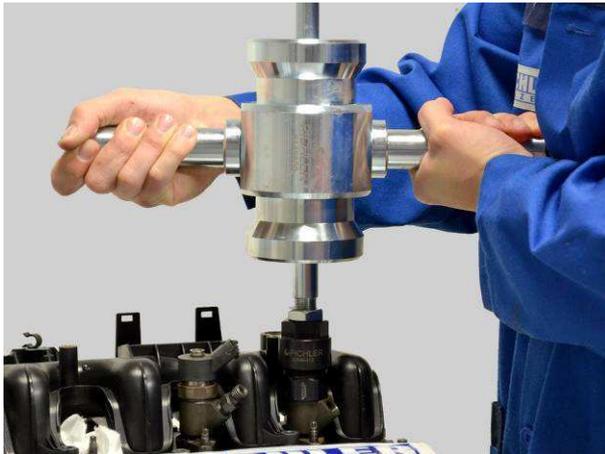
Screw the Extraction Adapter 60384408 in the injector and tighten it with a suitable spanner 24.



3.3 Mounting removal tools (not included in the set)

3.3.1 Bosch and Siemens injectors

Remove the seized injector using the 8kg slide hammer 6148800 or the universal hydraulic injector removal tool 60385395 from the cylinder head.



After successfully removing the injector from the cylinder head, it is possible that the injector sleeve is also pulled from the cylinder head.



injector sleeve



If the injector could be removed without the injector sleeve being pulled from the cylinder head (**picture A**), only the steps marked with  have to be carried out



In some cases it may happen that the injector sleeve is pulled from the cylinder head with the injector (**picture B**). If so, all steps have to be carried out in the correct sequence.



4. Sealing the combustion chamber

It is very important that the bore to the combustion chamber is sealed. First clean the bore with the pipe brush 60384413 and then seal it with the appropriate Sealing Plug Ø8mm or Ø10mm.



Important! The Sealing Plug must be removed after the injector shaft restoration.



5. Cleaning the sealing seat

- Remove the defective sealing ring with a suitable tool (e.g. a flat blade screwdriver).



- Place the Cleaning Cutter and Guide 60385422 in the sealing ring seat and by rotating it with ratchet with socket 19 remove the oil and carbon deposits from the seat.

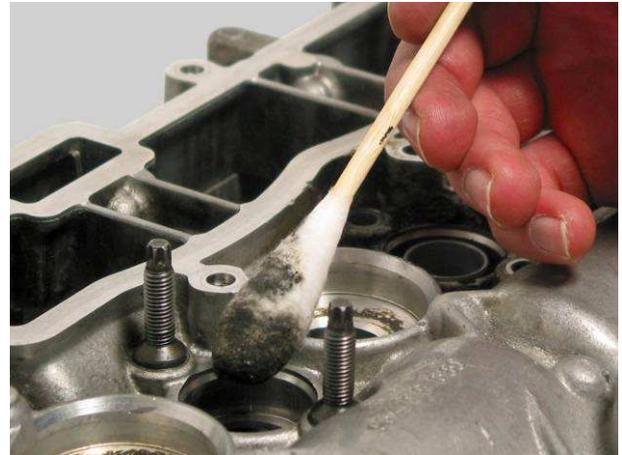


- Soak an appropriate Cotton Bud Swab (e.g. Ø5.0, Ø8.5, Ø12.0) with degreaser or brake cleaner and clean the sealing ring seat until it shines. If there are still any oil and carbon deposits present, repeat steps 2.2 and 2.3.



6. Cleaning the injector sleeve seat

Clean the seat of the injector sleeve with a appropriate Cotton Bud Swab (e.g Ø16.0, Ø20.0) and remove the worst dirt and oil.



Slide the Cleaning Cutter and Guide 60385422 on the shaft of the Cleaning Cutter 60385424 and place the combination in the injector shaft.



While applying a slight downward pressure turn the Cleaning Cutter with a socket 12 and ratchet until the groove on the spindle of the Cleaning Cutter has completely disappeared in the Guide.



Soak a Cotton Bud Swab (e.g. Ø16.0, Ø20.0) with degreaser or brake cleaner and clean the seat for the injector sleeve until it is perfectly clean.



7. Pressing in the injector sleeve

 Screw the legs 60385434 on the studs for the injector and tighten them with a suitable tool 10.



Slide the Injector sleeve 6038527 on the Seal and Injector Sleeve Drift 60385436 and slide the Centralising Ring 60385439 over the Injector sleeve.



Clean the injector sleeve 6038527 with a degreaser or brake cleaner and apply the special glue 6038529 approximately 1 cm wide, thin on the injector sleeve



Insert the unit in the injector shaft and mount the bridge 60385432 on the legs 60385434.



By turning the spindle with a 19mm socket and a ratchet and at the same time holding the bridge with a spanner 20, press the injector sleeve 60385427 in the cylinder head.



8. Pressing in the sealing ring

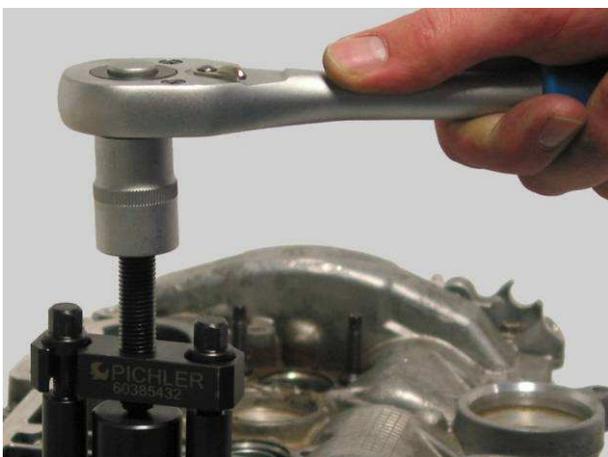
- Slide the sealing ring over the smaller diameter end of the Seal and Injector Sleeve Drift 60385436 and slide from the other side the Press Fit Sleeve 60385438 over the Drift.



- Slide the assembly in the injector sleeve, screw up the spindle of the Support Bridge 60385432 and place the Bridge on the Legs 60385434.

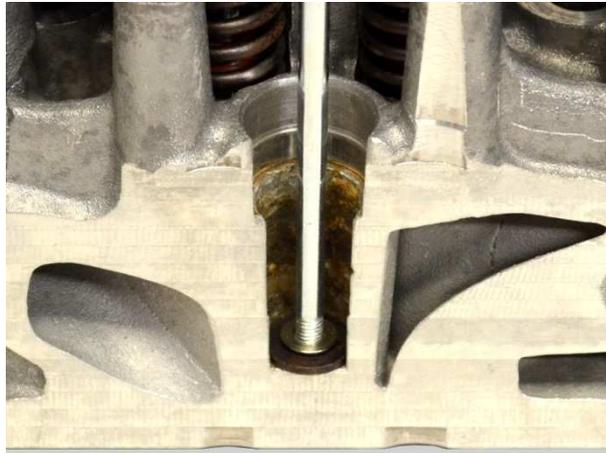


- By turning the Spindle with a socket 19 and a ratchet press the sealing ring completely in the cylinder head.



9. Remove the plug

After the successful restoration of the injector shaft the plug must be removed from the cylinder head. For this the Setting Tool 60390101 or a magnet is used.



We recommend the following accessories:

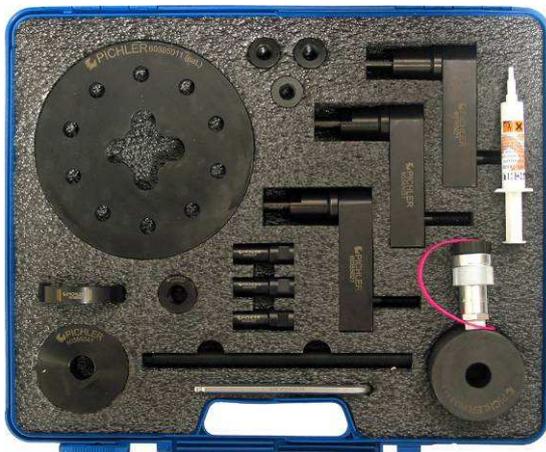
6148800 Slide hammer 8 kg



90390010 Injector shaft cleaning set



60385395 universal hydraulic injector removal tool



Do you have any questions?

Please contact us at our offices below:

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