

## INSTRUCTIONS FOR:

# DIESEL INJECTOR MASTER KIT

# MODEL No: **VS2064**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.

#### 1. SAFETY



**WARNING!** Ensure Health and Safety, local authority and general workshop practice regulations are adhered to when using tools.

- WARNING! Always use caution when working around fuel systems. The fuel in the fuel rail may be pressurised even if the engine is not running.
- □ **IMPORTANT:** These instructions are provided as a guide only. Always refer to the vehicle manufacturer's service instructions, or a proprietary manual, to establish the current procedure and data, also any warnings or cautions particular to the vehicle.
- **X DO NOT** use the set if any parts are missing or damaged.
- **X DO NOT** use this tool for any purpose other than that for which it is designed.
- ✓ Switch off the vehicle's ignition and disconnect the battery before commencing work under the bonnet.
- ✓ You must follow the vehicle's service manual cautions when working around the air bag system. If the cautions are not followed the air bag may deploy unexpectedly even after the ignition is turned 'OFF', resulting in personal injury.
- X Never lay tools on the vehicle's battery. This may short the terminals together, causing harm to yourself, the tools, or the battery.
- ✓ Operate in a well ventilated area. Do not inhale fuel vapours.
- ✓ Wear approved eye protection. A full range of personal safety equipment is available from your Sealey dealer.
- ✓ Wear suitable clothing to avoid snagging. Do not wear jewellery and tie back long hair.
- ✓ Keep children and other unauthorised persons away from the working area.
- ✓ Keep yourself, tools, and test equipment away from hot engine parts.
- ✓ Always keep a fire extinguisher that is suitable for fuel/electrical/chemical fires close by
- X NEVER smoke or have open flames near vehicle.
- ✓ Always relieve fuel pressure before disconnecting fuel lines from injectors.
- ✓ Cover fuel line fittings when connecting or disconnecting fuel lines to guard against high pressure leaks. Avoid contact with fuel.
- ✓ Clean up all fuel spills immediately and dispose of all waste according to local regulations.
- ✓ Maintain the tool components in good and clean condition for best and safest performance.
- ✓ When work on the vehicle is finished, ensure all connections on the vehicle are restored, and that there are no tools left in the engine bay.
- $\checkmark$  Replace tools in the carrying case and store in a safe, dry, childproof location.

### 2. INTRODUCTION

Suitable for the removal of Bosch, Delphi, Denso, Siemens and Pumpe Duse diesel injectors. Set includes keys and deep open profile sockets, used to dismantle injectors, plus a selection of adaptors for attaching the slide hammer securely to the body of the injector. Ball joint and choice of two sizes of slide hammer allow access in confined areas if required.

#### 3. CONTENTS

Slide Hammers; 1.3kg with 150mm Shaft, 4kg with 400mm Shaft,

- 4kg Slide Hammer Handle
- Flexible Joint

Security Hex Key 10mm

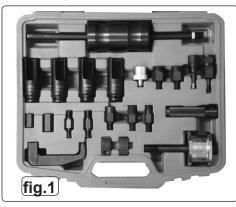
Adaptors Male: 10x1.5, 16x1.5, 17x1.0, 20x1.0, 25x1.0, 27x1.0mm

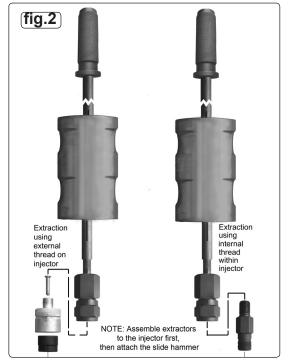
Adaptors Female: 14x1.5, 27x1.0mm (3pc)

Adaptors Hexagonal: 17mm (10x1.5 Female), 21mm (14x1.5 Female) Adaptors 'C' and 'J' (Pump Duse)

Claw Adaptor

Injector Cap Sockets 1/2""Sq Drive: 25, 27, 29, 30mm





## 3. ASSEMBLY

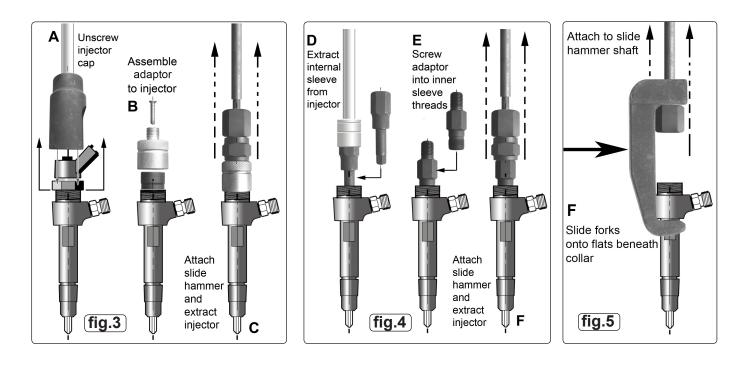
- 3.1. Assemble the Injector Puller as shown in fig.2.
- 3.2. Use external adaptor when the injector is being extracted using the external thread revealed when the injector cap has been removed.
- 3.3. Use one of the conventional adaptors when the injector is being

#### 4. OPERATION

- NOTE: The technique required for removal of the injector will depend on which system is fitted to the vehicle. Always use an external adaptor first if possible. If by using reasonable force the injector cannot be removed, use an internal adaptor or claw adaptor.
- 4.1. Before working on the fuel system, make sure that the fuel system is NOT pressurised. Refer to the manufacturer's instruction manual on how to de-pressurise the system.
- 4.1.1. Disconnect the injector wires and connections as per the manufacturer's instructions.
- 4.1.2. Remove any carbon build up from around the injector.
- 4.1.3. Remove the cap from the injector using the appropriate size socket. Refer to fig.3.A.
- 4.2. Use of external adaptor (fig.3).
- 4.2.1. Identify the external thread adaptor and separate the inner black part from the outer silver part by removing the screw from the top of the adaptor.
- 4.2.2. Position the black part inside the top of the injector (see B) then place the silver part over it, and screw it down firmly onto the external threads revealed when the cap was removed.
- 4.2.3. Install the screw securely thus locking the adaptor parts tightly together with the injector thread and wall in between. This ensures a more secure fastening and reduces damage to the injector threads.

extracted using the internal thread revealed when the inner sleeve has been removed from the injector.

- 4.3. Use of internal adaptor (fig.4).
- 4.3.1. Remove the internal parts from the injector to gain access to use the security hex key. It may be necessary to remove the injector vanes by force. Insert the security hex into the inner sleeve (see D). Turn the security hex anti-clockwise using a 21mm socket to remove the inner sleeve.
- 4.3.2. Screw the appropriate internal adaptor into the threads of the injector and tighten with a suitable spanner (see E).
- 4.4. Use of claw adaptor (fig.5).
- 4.4.1. Slide the forks of the claw adaptor onto the flats machined into the injector body (see F).
- 4.5. Removing the injector.
- 4.5.1. Screw the slide hammer assembly (handle, shaft and sliding hammer) securely onto the adaptor.
- 4.5.2. The injector can now be removed using reasonable force on the slide hammer. Be prepared for the sudden release of the injector from the cylinder head.
- 4.5.3. If the injector cannot be removed, it may be necessary to consult a main dealer or a diesel specialist, to avoid damage to the engine.
- 4.5.4. When an injector has been removed, it is recommended that only a new or refurbished injector is fitted. Follow manufacturers fitting and safety instructions.



# **Environmental Protection**

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain off any fluids (if applicable) into approved containers and dispose of the product and the fluids according to local regulations.

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**NOTE:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. **IMPORTANT:** No liability is accepted for incorrect use of this product.

WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.

INFORMATION: For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode



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