

SEALEY

DIESEL ENGINE TIMING TOOL KIT FOR FIAT, IVECO, CITROEN, PEUGEOT - 2.3D, 3.0D - BELT/CHAIN DRIVE

MODEL NO: **VSE5037.V2**

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.



Refer to instruction manual



Wear eye protection

1. SAFETY

- ❑ **WARNING!** Wear approved eye protection. Wear appropriate Personal Protective Equipment. A full range of Personal Protective Equipment is available from your Sealey dealer.
- ❑ **WARNING!** Ensure that Health & Safety, Local Authority Regulations and general workshop practice Regulations are adhered to when using tools.
- × **DO NOT** use tools if damaged.
- ✓ Maintain tools to ensure that they are in an adequate condition for safe use and optimum performance.
- ✓ Ensure that a vehicle that has been raised by a jack is adequately supported. Use axle stands.
- ✓ Wear suitable clothing to avoid snagging. **DO NOT** wear jewellery. Tie back long hair.
- ✓ Account for all tools, parts and components being used. **DO NOT** leave these in or near the engine. Return tools to suitable storage after use.
- ▲ **IMPORTANT !** These Instructions are provided as a guide only. Always refer to the vehicle manufactures' service instructions or a proprietary manual to establish the correct procedure and data.
- ❑ **WARNING!** The warnings, cautions and instructions in this manual cannot cover all possible conditions and situations. The Operator / user must apply caution and common sense (good practical sense).
- ✓ When timing an engine, always prevent the engine from being turned over. Use a notice and/or inhibit the engine.
- ❑ **WARNING!** Incorrect or out of phase camshaft timing can result in contact between the valve head and the piston crown. This will cause damage to the engine.
- ✓ Keep children and unauthorised persons away from the work area.
- × **DO NOT** attempt to start engine or move vehicle whilst in gear with the timing devices fitted.
- ✓ **Always** display a warning notification on steering wheel when timing engine components.

2. INTRODUCTION

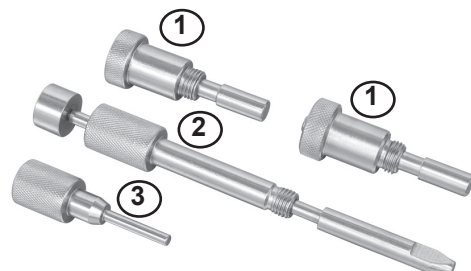
Suitable for setting and locking Fiat 2.3D JTD diesel engine (belt driven), Fiat 3.0D JTD diesel engine (chain driven) and Citroen/ Peugeot 3.0D Hdi diesel engine (chain driven). Set comprises camshaft setting pins, crankshaft locking pin and sensor locking pin.

3. CONTENTS

Item	Part Number	Description	OEM Number Fiat/Iveco	OEM Number Citroen/ Peugeot
1	VSE5037-V2-01	Camshaft Setting Pins *2 per set	99360614	(-).0191/2.B
2	VSE5037-V2-02	Crankshaft Locking Pin	99360615/2.000.018.200	(-).0191/2.A
3	VSE5037-V2-03	Sensor Position Locking Pin	99360608/1.860.617.000	-

*These spares are sold as individual tools - not as pairs or multiples. This information table provides the Vehicle Manufacturers' Specialised Tool references and the Sealey tool numbers covering the relevant service application.

fig.1



4. APPLICATIONS

Vehicle Applications:

Make: Model: Year:

Fiat: Ducato (02-11)

Iveco: Daily (03-10)
Daily/EcoDaily (09-11)

Citroen: Relay/Jumper III (06-14)

Peugeot: Boxer III (06-14)

Engine Codes:

2.3D Belt: F1AE0481A, F1AE0481B, F1AE0481C,
F1AE0481D, F1AE0481F, F1AE0481FA,
F1AE0481G, F1AE0481H, F1AE0481HA,
F1AE0481N, F1AE0481UA, F1AE0481VA.

3.0D Chain: F1CE0481A, F1CE0481B, F1CE0481D,
F1CE0481F, F1CE0481H, F1CE3481M.

3.0D HDi Chain: F30DTE(F1CE0481D), F30DTE(F1CE3481DM),
F30DTE(F1CE3481N).

5. INSTRUCTIONS

5.1. VSE5037.V2.02 Crankshaft Locking Pin.

5.1.1. The entry point for the VSE5037.V2.02 Crankshaft Locking Pin is located in the front crankcase next to the crankshaft gear (timing belt gear). The VSE5037.V2.02 is threaded and screws into the crankcase. The end of the 'plunger section' locates into a timing hole in the gear, which is inside the casing (fig.2).

5.1.2. With the Pin inserted the engine should be slowly turned to TDC No. 1 cylinder whilst simultaneously pushing the 'plunger section' of the Locking Pin until it enters into the timing hole in the gear.

NOTE: The end of the 'plunger section' has two flats. These flats must be in a vertical plane in order to enter the timing hole.

5.2. VSE5037.V2.01 Camshaft Setting Pins (2 per set).

5.2.1. The VSE5037.V2.01 Setting Pins locate into timing holes, in both camshafts, via threaded holes at the rear of the camshaft housing cover.

5.2.2. With the engine at TDC No.1 cylinder, remove the seals in the housing cover and visually check that the timing holes in the camshafts are in line with the entry holes in the housing cover.

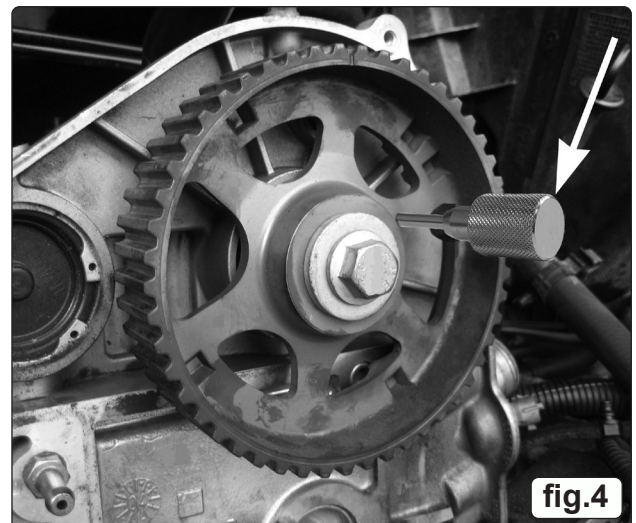
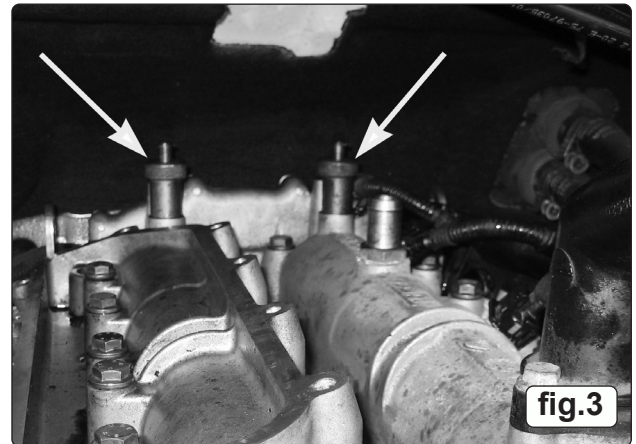
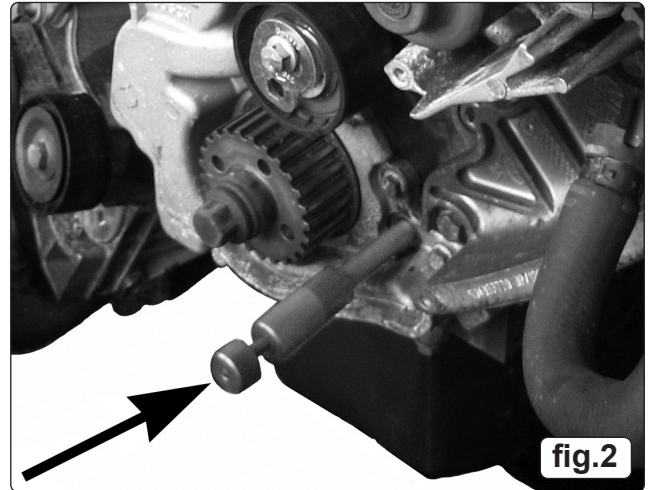
5.2.3. Screw in the VSE5037.V2.01 Setting Pins to 'set' the camshafts in 'timed' position (fig.3). The timing belt tensioner can then be released and the old belt removed.

NOTE: During installation of a new belt the front camshaft sprocket must be released off its taper and be free to turn (but not tilt). A suitable Sprocket Holding Tool must be used to counter hold the sprocket whilst releasing or tightening the sprocket bolt. The setting/locking tools MUST NOT be used as counter hold tools.

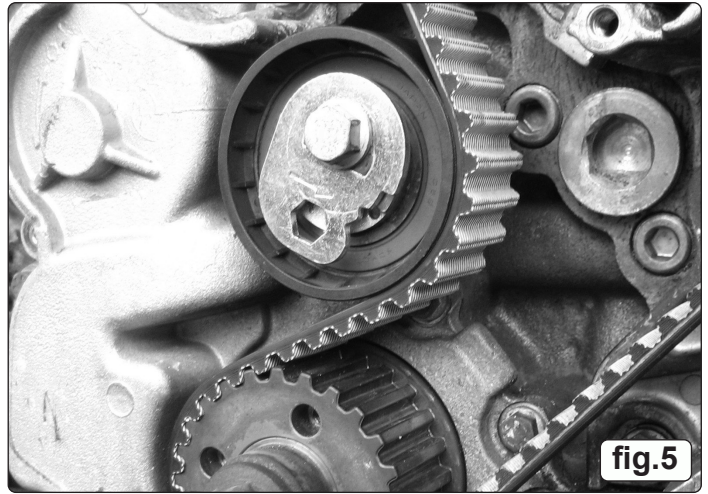
5.3. VSE5037.03 Sensor Position Locking Pin.

5.3.1. The new belt should be installed ensuring that it is taut on the non-tensioned side. The Sensor Position Locking Pin is inserted through the front camshaft sprocket, in the 3 o'clock position, to 'lock' the timing sensor in the correct position until the new belt has been fitted (fig.4).

5.3.2. It is then removed and the front camshaft sprocket bolt tightened. Once an **initial** belt tensioner position is achieved, **all** timing tools are removed from the engine.



5.3.3. The engine is turned a number of times and returned to TDC No.1 cylinder and the **final** tensioner position fixed (fig.5). The engine is turned, again returning to TDC No.1 cylinder, and finally the Crankshaft Locking Pin and Camshaft Setting Pins are inserted to ensure the engine timing position is correct.



ENVIRONMENT 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 any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



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. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on technical@sealey.co.uk or 01284 757505.

Important: No Liability is accepted for incorrect use of this product.

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

Sealey Group, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk. IP32 7AR

 01284 757500

 sales@sealey.co.uk

 www.sealey.co.uk