

Instructions for:

DIESEL ENGINE SETTING/LOCKING KIT - Citroen, Peugeot, LDV - 1.9 DW8

- Belt Drive

Model No: VS4822

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.

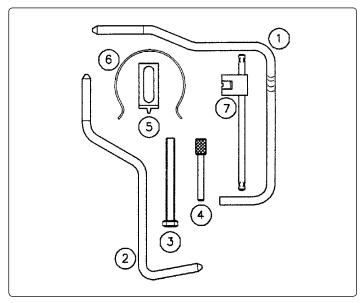


IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP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

## 1. INTRODUCTION & CONTENTS

Specialised timing tool kit covering belt replacement applications on all PSA - DW8 code 1.9 diesels. Includes tools for locking flywheel, camshaft and injection pump plus a tensioner adjuster. Supplied with a warning tag.





Contents			OEM Number		
Item	Part Number	Description	Citroen	Peugeot	LDV
1.	VS125/C8	Flywheel Locking Pin	(-).0188.D	(-).0188.D	LDV104
2.	VS125/C6	Flywheel Locking Pin	(-).0188.Y	(-).0188.Y	
3.	VS1210/M8	Camshaft Locking Bolt	(-).0188.E	(-).0188.E	
4.	VS125/C2	Injection Pump Locking Pin	(-).0188.H	(-).0188.H	LDV 167/23-019
5.	VS1286	Flywheel Holding Tool (Crank Pulley Removal)	(-).0188.F	(-).0188.F	
6.	VS1210/04	Timing Belt Retaining Clip	(-).0188.K	(-).0188.K	
7.	VS1210/02	Timing Belt Tensioner Adjuster	(-).0188.J1	(-).0188.J1	
	VS4822/84	Case + Insert			

This information table provides the Vehicle Manufacturer's Specialised Tool references and the Sealey tool numbers covering the relevant service application.

# 2. APPLICATIONS

### **Vehicle Applications:**

Make:	Model:	Year:	1.9D
Citroen:	Xsara I/II	(98-04)	DW8/LW3(WJZ)
	C15	(01-06)	DW8/L3(WJZ)
	Berlingo I/II	(00-07)	DW8B(WJY)
	Dispatch/Jumpy I/II	(99-07)	DW8B/L4(WJY)

**Peugeot:** 206 (98-04) 306 (98-02)

Partner I/II (98-07) Expert I/II (99-07)

**LDV**: Pilot (02-05)

# 3. SAFETY INSTRUCTIONS

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

**Engine Codes:** 

- **X DO NOT** use tools if damaged.
- ✓ Maintain tools in good and clean condition for best and safest performance.
- ✓ Ensure that a vehicle which has been jacked up is adequately supported with axle stands.
- ✓ 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.
- ✓ Account for all tools, locking bolts, pins and parts being used and do not leave them in or near the engine.
- ☐ WARNING! Incorrect or out of phase camshaft timing can result in contact between valve head and piston crown causing damage to the engine.

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.

## 4. INSTRUCTIONS

# 4.1 Preparation.

To prepare for timing belt replacement, raise/support the front of the vehicle. Remove R-H front wheel and splash guard. Remove the auxiliary belt and tensioner.

VS1286 Flywheel Holding Tool (Crank Pulley removal). In order to remove the timing belt, the crankshaft pulley must be removed.

**VS1286 Holding Tool** is used to 'lock' the flywheel when releasing the pulley bolt. Once the bolt is released, the tool is removed.

Remove the clutch housing bottom plate to give access for the **Holding Tool. VS1286** is also fitted when refitting the pulley bolt (Fig.1).

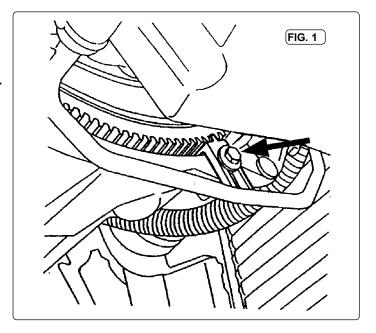
**IMPORTANT:** Locking Pins must **NOT** be used to hold the crankshaft whilst releasing or tightening the pulley bolt. Locking Pins are for retention of timing position only. Support the engine and remove the right-hand mounting/ bracket to enable the timing covers to be removed.

# 4.2 Setting Engine Timing / Belt Removal.

### VS125/C6 and VS125/C8 Flywheel Locking Pins.

Turn the crankshaft to its timed position and 'lock' by inserting the TDC Pin into the flywheel datum hole.

**NOTE:** Often access is restricted by the starter motor or other components, which are not usually removed. The special shape of VS125/C6 and VS125/C8 allows their use around these obstructions. Select the Locking Pin, which best overcomes any obstructions (Fig.2).



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## VS125/C2 Locking Pin and VS1210/M8 Locking Bolt.

The camshaft and injection pump must be held in their timed position.

On DW8 engines VS125/C2 Pin and VS1210/M8 are used to 'lock' the injection pump and camshaft sprockets respectively (Fig.3).

## VS1210/02 Timing Belt Tensioner Adjuster.

Once the flywheel, camshaft and injection pump are 'locked' in timed position with the appropriate Locking Tools, the belt tensioner can be released and turned clockwise away from the belt using VS1210/02 (Fig.4). The timing belt is then removed.

# 4.3 Fitting the New Belt / Tensioning Procedure.

Before fitting the new belt ensure the flywheel, camshaft sprocket and injection pump locking tools are fitted in place.

Loosen, to finger-tight, the 3 bolts retaining the camshaft sprocket and turn the sprocket fully clockwise in the slotted holes.

On DW8 engines the 3 bolts of the injection pump sprocket are likewise loosened and the sprocket turned fully clockwise to the end of slotted holes.

**NOTE:** The bolts of these sprockets should be loosened to the point where slight resistance is felt when turning the sprockets.

### VS1210/04 Timing Belt Retaining Clip.

Fit the new belt to the crankshaft gear and retain in place with VS1210/04 Clip (Fig.5)

Fit belt in an anti-clockwise direction to tensioner roller, injection pump sprocket, camshaft sprocket, water pump and tensioner ensuring it is taut between sprockets.

**NOTE:** When fitting the belt onto the camshaft and injection pump sprockets, it can be engaged into the teeth by slightly turning the sprockets anti-clockwise. However angular movement of the sprockets **MUST NOT** exceed one tooth space.

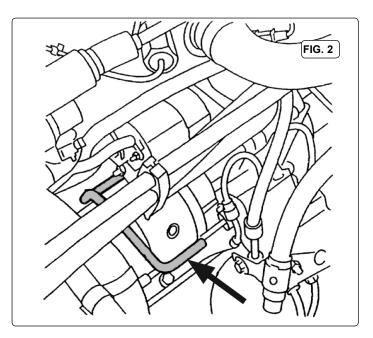
Remove VS1210/04 Belt Clip.

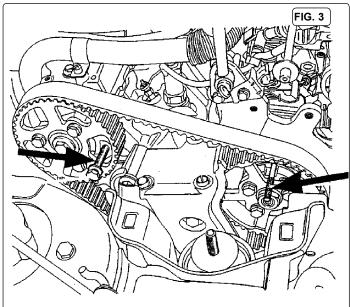
Use VS1210/02 Tensioner Adjuster to apply initial tension to the belt. Attach a suitable Tension Tester and turn the tensioner anti-clockwise to achieve specified belt tension. **IMPORTANT:** At this stage the 3 bolts of the camshaft and injection pump sprockets **MUST NOT** be at the end of their slotted holes. Tighten these bolts to specified torque.

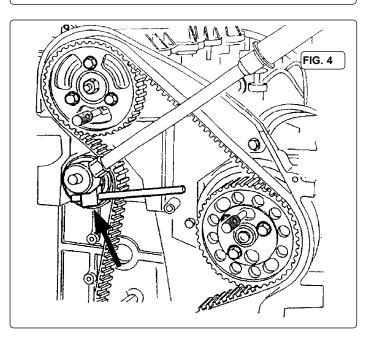
Remove all locking pins and turn the engine over, by hand, a few times in the normal direction of rotation, returning to timing position and re-fitting all locking pins. **IMPORTANT:** Never allow the crankshaft to be turned in the reverse direction.

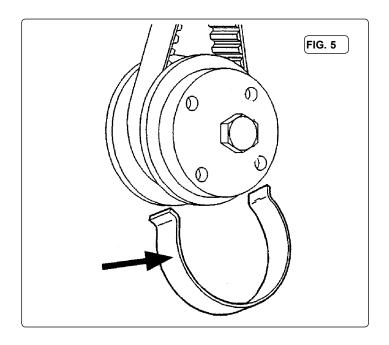
Loosen, to finger-tight, the 3 bolts of the camshaft and the injection pump sprocket , and release tensioner bolt. Attach Tension Tester, re-tension belt to specified tension and tighten tensioner bolt. Tighten camshaft and injection pump sprocket bolts.

It is good practice to confirm the timing is correct by finally adjusting the engine to timed position and refitting the timing tools to check the timing position.









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.

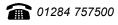
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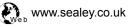


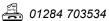
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