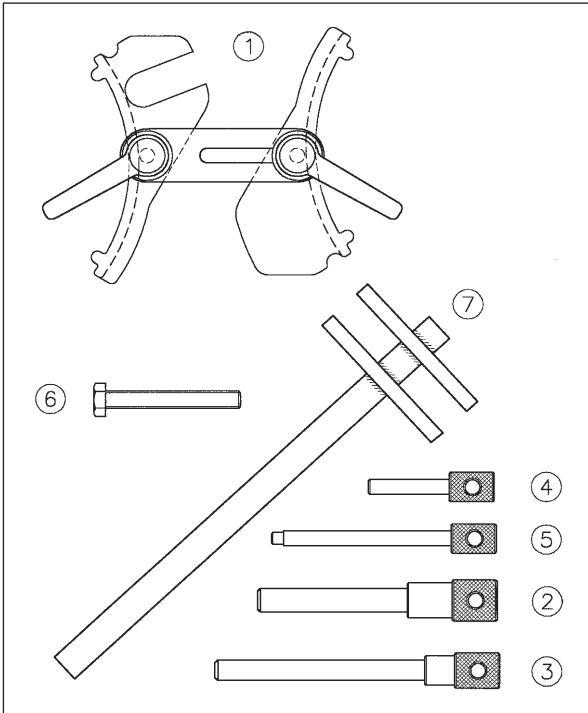




INSTRUCTIONS FOR:  
**DIESEL/PETROL ENGINE SETTING/LOCKING  
 TOOL KIT - RENAULT, MITSUBISHI, VAUXHALL/  
 OPEL, VOLVO - BELT DRIVE  
 MODEL No: VS122**

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

A comprehensive kit of setting and locking tools for use on all Renault models. Designed for use on petrol and diesel engined vehicles. Supplied in carry case with warning tag.

Contents			OEM Number	
Item	Part Number	Description	Renault	Vauxhall/Opel
1	VS1250	Sprocket MULTI-LOCK	Mot 1196/1200-01/851	
2	VS125/R1	Crankshaft TDC Locking Pin	Mot 1054/861	
3	VS125/R2	Crankshaft TDC Locking Pin	Mot 910	
4	VS125/R3	Injection Pump Locking Pin	Mot 1131	6032
5	VS125/R4	Crankshaft Locking Pin	Mot 1318	6031
6	VS125/T3	Adjusting Bolt	M6	
7	VS1251	Tensioner Adjuster	Mot 1135	

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

## 2. SAFETY INSTRUCTIONS

- ❑ **WARNING!** Ensure all health and safety, local authority, and general workshop practice regulations are strictly adhered to when using tools.
  - x **DO NOT** use tools if damaged.
  - ✓ Maintain tools in good and clean condition for best and safest performance.
  - ✓ If required, ensure the vehicle to be worked on is adequately supported with axle stands, ramps and chocks.
  - ✓ 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! DO NOT** use locking pins to hold the crankshaft whilst releasing or tightening the pulley bolt. Locking pins are for retention of timing position only. Use an appropriate flywheel holding tool.
- IMPORTANT:** Always refer to the vehicle manufacturer's service instructions, or proprietary manual to establish the current procedure and data. These instructions for use are provided as a guide only.

### 3. APPLICATIONS

Make:	Model:	Year:	Engines:
<b>Renault:</b>	Clio	(90-98)	<b>1.2:</b> E7F00, E7F704, E7F706, E7F708, E7F750
	Clio II/Clio Campus/ Clio Storia	(98-13)	<b>1.2 16V:</b> D4F 702, D4F 704, D4F 706, D4F 708, D4F 712, D4F 714, D4F 716, D4F 720, D4F 722, D4F 728, D4F 730, D4F 740, D4F 742, D4F 764, D4F 772, D4Ft 780, D4Ft 782, D4Ft 784, D4Ft 786
	Clio III	(05-13)	<b>1.4:</b> E7J 601, E7J 624, E7J 626, E7J 634, E7J 635, E7J 710, E7J 711, E7J 716, E7J 718, E7J 719, E7J 754, E7J 756, E7J 757, E7J 764, E7J 780
	Clio IV	(12-15)	
	Clio Symbol/Thalia	(01-08)	<b>1.8:</b> F3P 674, F3P 676, F3P 678, F3P 710, F3P 712, F3P 714, F3P 720, F3P 724, F3P 755, F3P 758, F3P B670, F3P Q7, F3P R7, F3P S724
	Espace/ Grand Espace	(96-02)	
	Extra/Rapid/Express	(91-02)	<b>1.8 16v:</b> F7P 720, F7P 722
	Kangoo	(98-09)	
	Laguna	(94-01)	<b>1.9D/Di/dTi/Turbo:</b> F8Q 600, F8Q 606, F8Q 620, F8Q 622, F8Q 624, F8Q 630, F8Q 632, F8Q 644, F8Q 646, F8Q 648, F8Q 662, F8Q 672, F8Q 676, F8Q 678, F8Q 680, F8Q 682, F8Q 684, F8Q 692, F8Q 696, F8Q 714, F8Q 722, F8Q 724, F8Q 730, F8Q 732, F8Q 776, F8Q 784, F8Q 786, F8Q 788, F8Q 790, F8Q B640
	Mascott	(99-07)	
	Master	(95-98)	
	Master II	(98-03)	
	Master Propulsion	(99-07)	
	Master RWD	(99-07)	
	Megane	(95-03)	
	Megane Scenic	(96-99)	
	Modus	(04-08)	
	Safrane	(91-01)	
	Scenic	(99-03)	F9Q1, F9Q2, F9Q 710, F9Q 716, F9Q 717, F9Q 720, F9Q 722, F9Q 730, F9Q 731, F9Q 734, F9Q 736, F9Q 744, F9Q 760, F9Q 762, F9Q 770, F9Q 774, F9Q 780, F9Q 782, F9Q 790, D4192T, D4191T2, D4192T3, D4192T4
	Trafic	(95-00)	
Twingo	(00-07)		
Twingo II	(07-13)		
Wind	(11-13)		
<b>Mitsubishi:</b>	Charisma	(01-05)	<b>2.0:</b> F3R 611, F3R 722, F3R 723, F3R 742, F3R 750, F3R 751, F3R 752, F3R 768, F3R 769, F3R 791, F3R 796, F3R 797, F3R 798, F3R J728, F3R J729, F3R K728, F3R K729, J7R 732, J7R 733
	Space Star	(00-06)	
<b>Vauxhall/Opel:</b>	Arena	(97-01)	<b>2.0 12v:</b> J7R 734, J7R 735
	Movano-A	(99-06)	
	Vivaro	(01-07)	
<b>Volvo:</b>	S40	(96-04)	<b>2.1D:</b> J8S 620, J8S 622, J8S 758, J8S 760
	V40	(96-04)	<b>2.0 16v:</b> F7R 700, F7R 714, F7R D710,
			<b>2.2 12v:</b> J7T 760, J7T 761
			<b>2.2D/Turbo:</b> G8T 706, G8T790, G8T 752, G8T 794, G8T 792, G8T 760, G8T 740, G8T 714, G8T 716
			<b>2.5D:</b> S8U 758, S8U 762, S8U 763, S8U 770, SBU 772, S8U 780, S8U 782
			<b>2.5D Turbo:</b> S9U 714, S9U 740
			<b>2.8 dCi:</b> S9W 206, S9W 208, S9W 212
			<b>2.8D dTi:</b> S9W 700, S9W 702

## 4. INSTRUCTIONS FOR USE

### 4.1. DIESEL CAMSHAFT/INJECTION PUMP SPROCKET LOCKING

#### VS1250 'Sprocket MULTI-LOCK' Timing Device

VS1250 is designed to 'lock' twin camshafts, cam and/or injection pump sprockets on their timing marks to ensure the engine timing position is retained during timing belt removal/renewal. VS1250 is uniquely adjustable in size between sprockets to provide a parallel fit or, additionally, lateral/off-set positioning. The tool locates into the sprocket teeth giving a firm and secure 'lock'.

Once fitted securely into the teeth the 'MULTI-LOCK' is clamped in final position using the two special ratcheting lock handles (fig.1). Their ratchet mechanism allows tightening in the often restricted area around the sprockets as well as providing the strong lever action required for firm locking.

Dependant upon application, the VS1250 'Sprocket MULTI-LOCK' is used complete, as a combined left and right hand plate between two sprockets, or is dis-assembled and the plates used singly. When using a single plate it fits into the teeth of the sprocket and bolts onto the engine to lock the injection pump sprocket.

On most Renault diesel engines the injection pump sprocket can be held on its timing mark by locking VS1250 onto the sprocket teeth. On J8S (2.1D/TD) engines the complete tool is used and timing positions are retained by locking in to both the camshaft and injection pump sprockets (fig.2).

For F8Q, F9Q (1.9D/TD) and G8T (2.2D/TD) diesels a single plate only is used, being positioned in the injection pump sprocket teeth and bolted to the engine in the place provided, to secure the timing position (fig.3).

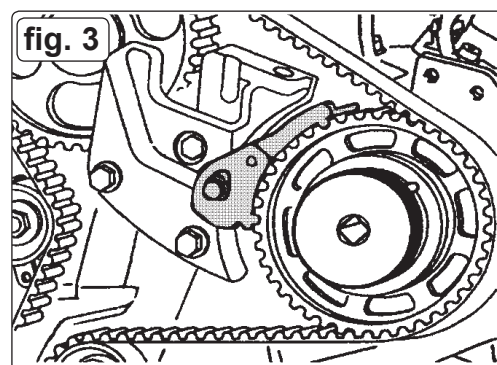
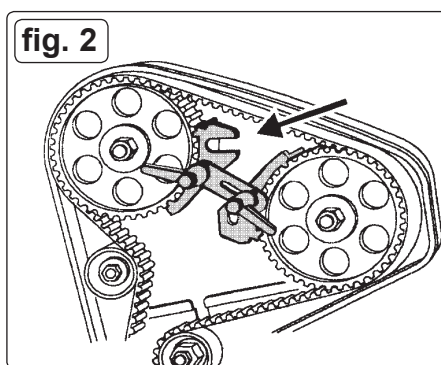
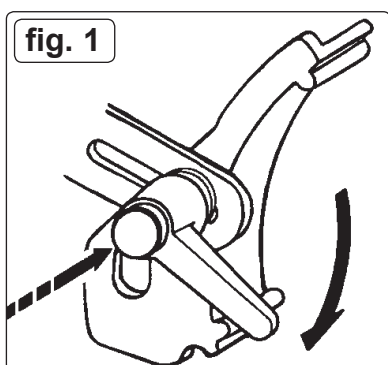
A single plate can also be used to hold the injection pump sprocket firmly in place to release and tighten the pump/sprocket nut for timing/removal of the injection pump.

#### USAGE

F8M & J8S engines ..... Complete 'MULTI-LOCK' VS1250  
F8Q/F9Q & G8T engines ..... Single plate from 'MULTI-LOCK'

**NOTE:** In addition to Renault models, F8Q 1.9D diesel engines are fitted in Mitsubishi Carisma, Vauxhall/Opel Arena and Volvo 440/460/S40/V40 models. See Application Chart, Section 3, for specific models.

VS1250 'Sprocket MULTI-LOCK' is also used for 'locking' camshafts on Twin Cam engines - see Twin Cam Engine Timing Tools - Section 4.5.



### 4.2. ENGINE SETTING/LOCKING TOOLS

#### 4.2.1. VS125/R1 and R2 Crankshaft TDC Locking Pins

Used on many Renault diesel and petrol engines, these pins enter datum holes in the engine casing and locate into crankshaft to lock engine at TDC (fig.4).

1. Rotate the engine in the normal direction of rotation and align all timing marks ensuring No.1 cylinder is at TDC.
2. Remove plug and insert locking pin to engage in the crankshaft datum hole.

**IMPORTANT:** Move crankshaft forwards and backwards slightly to be certain pin is inserted correctly.

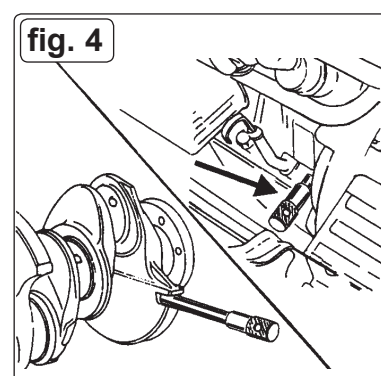
#### USAGE

F8Q, F9Q, diesel

F7P/F7R Twin Cams ..... VS125/R1

G8T 2.2 diesel ..... VS125/R2

See Application Chart, Section 3, for specific models.



**4.2.2. VS125/R3 and R4 Locking Pins**

These locking pins are used as a pair to lock the crankshaft and injection pump on the Renault S8U/S9U diesel engines.

1. Pins enter through holes in sprockets into datum holes on the engine.
2. Ensure all timing marks are aligned and Pin R4 will locate through and lock crankshaft pulley (fig.5).
3. Pin R3 will lock the injection pump sprocket (fig.5).

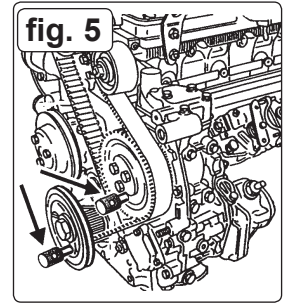
**NOTE:** If crank pulley does not have a hole, insert pin in the flywheel.

**USAGE**

**S8U/S9U 2.5 diesel** ..... **VS125/R3 and R4**

**NOTE:** For 2.8TD variants and where an Electronic Injection Pump is fitted it may be necessary to use VS125/R1 Pin for the crankshaft 'lock'.

- **WARNING!** 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. Use an appropriate flywheel holding tool.



**4.3. Flywheel Holding Tools/Sprocket Turning Tool**

**Associated tools**

It may be necessary to remove the crankshaft pulley when replacing the timing belt. The pulley bolt has a high torque loading and the engine must be 'locked' safely with the correct Flywheel Holding Tool when releasing bolt.

Use VS1283, VS1284 or VS1285 Holding Tools.

For model/engine coverage see Application Chart - Section 3.

Use VS169 for holding/turning cam/injection pump sprockets when releasing bolt and for aligning timing marks.

**4.4. Tensioner Adjustment Tools**

Belt tensioning procedures are critical and the manufacturer's procedure **MUST** be followed. These procedures often require a tensioning tool to adjust the tensioner itself.

**VS125/T3 and VS1251 Tensioner Adjusters**

VS125/T3 Adjuster is required on petrol and diesel applications to allow tension to be applied to the tensioner/belt. It is screwed into threaded hole in rear upper timing cover to push the tensioner and apply tension to the belt (fig.6).

VS1251 Tensioner Adjuster turns the belt tensioner to apply correct tension. This specialised wrench locates into two holes on the tensioner on Renault petrol engines and variants of J8S and S8U diesel engines (fig.7).

**USAGE**

**F8Q 1.9 diesel**

**F7P Twin Cams** VS125/T3

**E7, J7, petrol**

**J8S.760, S8U.8144 diesel** VS1251

**D7F 1.2 petrol**..... **VS1254 (Associated Tool - not in kit)**

See Application Chart, Section 3, for specific models.

**4.5. TWIN CAM ENGINE TIMING TOOLS**

**VS1250 'MULTI-LOCK' Timing Device**

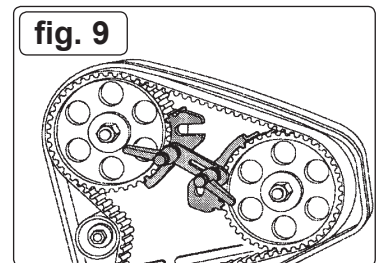
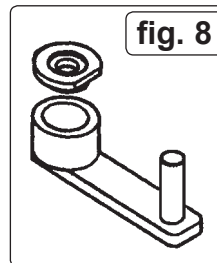
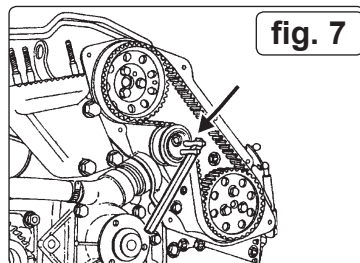
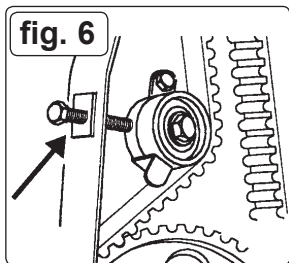
In addition to diesel engine applications, the unique VS1250 'Sprocket MULTI-LOCK' is also used to 'lock' twin camshaft engine sprockets in their timed positions during timing belt replacement (fig.9). On these Renault 1.8 and 2.0 16v (i.e. F7P/F7R) engines, the timing marks are aligned and the 'MULTI-LOCK' is placed between the cam sprockets, expanded to engage into the teeth of both sprockets and tightened firmly in position to retain the timing positions.

These engines also use VS125/R1 Crank TDC Lock Pin and VS125/T3 Tensioner Adjuster.

**USAGE**

**F7P/F7R Twin Cam** ..... **VS1250 'MULTI-LOCK', VS125/R1 & VS125/T3**

See Application Chart, Section 3, for specific models.





#### 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.

**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 product.

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

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