

INSTRUCTIONS FOR:

DIESEL ENGINE SETTING/LOCKING TOOL KIT

MODEL: VS4735

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 THIS 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.

1. SAFETY INSTRUCTIONS

- ✓ Maintain the tools in good and clean condition for best and safest performance.
- WARNING! Ensure that all Health & Safety, local authority and general workshop practice regulations are strictly adhered to when using these tools.
- X DO NOT use tools if damaged.
- WARNING! Incorrect or out of phase camshaft timing can result in contact between valve head and piston crown, possibly causing damage to the engine.

IMPORTANT: Always refer to the vehicle manufacturer's service instructions, or a proprietary manual, to establish the current procedures and data. These instructions are provided as a guide only.



VS4735

2. INTRODUCTION & APPLICATIONS

PSA 1.4 and 1.6 HDi diesel engines are also fitted in Ford models under Duratorg (TDCi) identification.

Timing belt replacement on these engines requires the use of 3 Locking Pins.

- 2.1 APPLICATIONS CITROEN / PEUGEOT Diesel engines 1.4 & 1.6 HDi. Also in Ford models as Duratorq TDCi engines.
- 2.1.1 **CITROEN**

C3

2.1.2 **FORD**

Fiesta Fusion Focus C-Max

2.1.3 **PEUGEOT**

206 307

DV4TD (8HW/8HX), DV4TED4 (8HV/8HY), DV6TED4, F6JA engines.

3. CONTENTS

ITEM PART NO. DESCRIPTION

01. VS4735P16 FLYWHEEL LOCKING PIN

02. VS4735P15 INJECTION PUMP & CRANKSHAFT LOCKING PIN

03. VS4735P17 CAMSHAFT LOCKING PIN





VS4735

4. OPERATING INSTRUCTIONS

Note: Remove the RH road wheel and inner wing cover. Move the electrical harness away from the belt upper cover and remove auxiliary belt, upper timing belt cover and the blanking plug in the bell housing where Locking Pin VS4735P16 is to be inserted.

4.1 FLYWHEEL LOCKING PIN - VS4735P16

- 4.1.1 Rotate the crankshaft until VS4735P16 can be inserted into one of the slots in the flywheel to 'lock' the engine.
- 4.1.2 Remove the crankshaft pulley, lower timing belt cover, crank position sensor, (check that the magnetic track is not damaged) and belt guide angle bracket.

□ WARNING! Do not touch the magnetic track (sensor ring).

4.1.3 Re-fit the crankshaft pulley bolt (to facilitate engine turning), and remove Locking Pin VS4735P16.

CAMSHAFT LOCKING PIN - VS4735P17 4.2

4.2.1 Turn the engine until the camshaft sprocket timing holes align (approximately the 2-0-clock position) and insert Locking Pin VS4735P17.

4.3 **CRANKSHAFT LOCKING PIN - VS4735P15**

Check that the crank keyway is in the 11o'clock position and insert Locking Pin VS4735P15 to confirm correct crankshaft position.

Note: VS4735P15 Locking Pin is also used to check the fuel pump alignment via holes in the pump sprocket. If there is not a corresponding hole in the pump bracket to the hole in the sprocket, then align by positioning the holes in the sprocket vertically.

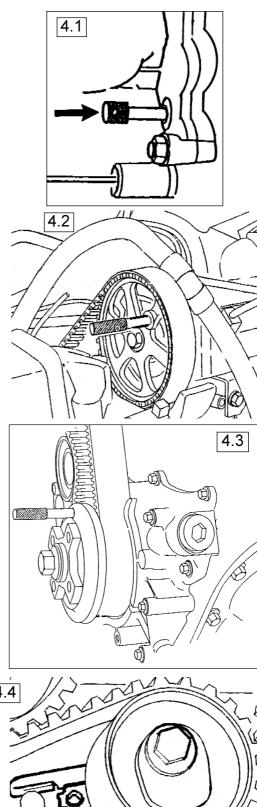
- 4.3.2 Support the engine to allow removal of the R-H engine mounting/bracket, release the tensioner and remove the old timina belt.
- 4.3.3 Ensure the camshaft sprocket and crankshaft are locked in timing position with Pins P17 and P15 respectively. Ensure the fuel pump is aligned correctly.

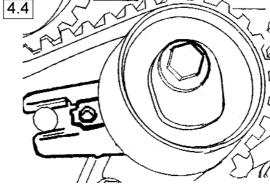
4.4 **TENSIONING BELT**

- 4.4.1 Fit the new timing belt and install the engine mounting/bracket.
- 4.4.2 Apply tension to the belt by turning the tensioner anti-clockwise until the pointer is positioned between the sides of the window.
- 4.4.3 Re-fit crank position sensor and belt guide angle bracket.

WARNING! Do not touch the magnetic track (sensor ring).

- 4.4.4 Remove the Locking Pins.
- Carefully rotate the crankshaft 10 times clockwise.
- Check engine timing by ensuring that the camshaft and crank 4.4.6 shaft locking pins can be inserted and that the fuel pump sprocket is correctly aligned.
- 4.4.7 Remove all Locking Pins and check the tensioner pointer is positioned within the window.
- 4.4.8 Insert Locking Pin P16 into the flywheel and fit the crankshaft pulley using a new centre bolt.

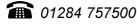




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