**INSTRUCTIONS FOR:** 

# CRANKSHAFT PULLEY REMOVAL/INSTALLATION SET

MODEL No: **VS1013** 

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.

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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

- □ **WARNING!** Ensure that Health and Safety, local authority and general workshop practice regulations are adhered to when using these tools.
- **X DO NOT** use tools if they are damaged.
- Maintain the tools in a good, clean condition for the best and safest performance.
- ✓ Ensure that the ignition key is removed from the vehicle's ignition, to prevent inadvertent engine cranking.
- ✓ If the vehicle to be worked on is raised, ensure that it is adequately supported with axle stands or 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 on or near the engine.
- ✓ Always display a warning notification on the vehicle's steering wheel, when locking engine components.
- □ WARNING! Incorrect or out of phase camshaft timing can result in contact between the valve head and piston crown causing damage to the engine.
- X DO NOT attempt to start the engine or move the vehicle whilst in gear with locking devices fitted.
- ☐ **IMPORTANT:** Always refer to the vehicle manufacturer's service instructions, or a proprietary manual, to establish the current procedure and data. These instructions are provided as a guide only.

#### 2. INTRODUCTION & SPECIFICATION

#### 2.1. INTRODUCTION

Suitable for the removal and installation of the free-floating crankshaft pulley. Essential tool for timing belt replacement on certain Ford engines. The only way to perform timing belt replacement without risk of damage to the engine.

#### 2.2. APPLICATIONS

Ford: . . . . . . . . . . Puma 1.4/1.6 (-1999), 1.7 16v (-2002).

Engine Codes: . . . . FHD, FHF, L1W, MHA, MHB.

**Note:**Pulley Installer VS1013/02 can be used on Ford Fiesta & Courier models with 1.25/1.4 16v engines (-2002).

Engine Codes: . . . . DHA, DHB, DHD, DHE, DHF. FHA, FHE,

L1T, L1V.

#### 3. CONTENTS & ASSOCIATED TOOLS

### 3.1. Contents

- 1. VS1013/01 Pulley Removal Plate
- 2. VS1013/02 Pulley Installer
- 3. VS1013/03 Holding Tool

#### 3.2. Associated Tools

Twin Cam Petrol and 1.8 Diesel Setting/Locking Tool Kit: VS1012

# 4. INSTRUCTIONS

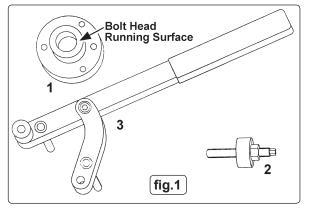
#### 4.1. VS1013/01 Pulley Removal Plate

This plate is used in conjunction with VS1013/03 Holding Tool to remove pulleys on 1.4/1.6 engines (up to 1999) and 1.7 engines (up to 2002). The Removal Plate is bolted onto the pulley and is prevented from rotating by Holding Tool VS1013/03. As the pulley centre bolt is unscrewed it reacts on the Removal Plate to withdraw the pulley off the crankshaft.

4.1.1.Lubricate the 'bolt head running surface' of VS1013/01 Removal Plate (fig.1) and bolt it onto the pulley (2 bolts) with the running surface against the domed head of the pulley centre bolt.

## 4.2. VS1013/03 Holding Tool

4.2.1.Locate the two pegs of the VS1013/03 Holding Tool into the remaining two holes in the VS1013/01 Removal Plate and use it to counter-hold the plate and pulley to prevent turning, whilst unscrewing the pulley centre bolt. As the bolt is unscrewed it pushes the Removal Plate forward and this in turn extracts the pulley from the shaft (fig.2).



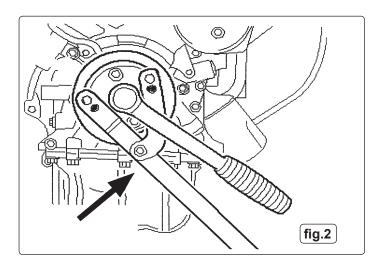
#### VS1013/02 Pulley Installer 4.3.

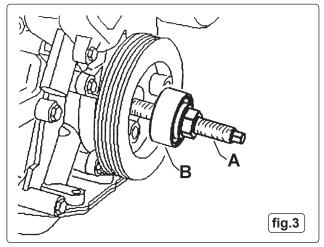
Replacing the crankshaft pulley requires specialised Pulley Installer VS1013/02.

IMPORTANT! A new pulley centre bolt is always required.

The pulley MUST NOT be pressed on using the centre bolt, as this results in the torque limit for the bolt being achieved before the pulley is fully installed. Use VS1013/02 Installer to press the pulley fully onto the shaft and then fit the new centre bolt.

- 4.3.1. Place the pulley on the shaft and screw the installer centre screw (fig.3.A) into the shaft thread.
- Screw on the Force Nut Assembly (fig.3.B) and, holding the end of the centre screw with a socket, turn the force nut to install the pulley.
- 4.3.3. Remove VS1013/02 and counter-hold the pulley with Holding Tool VS1013/03, whilst installing a new centre bolt to 40Nm + 90°.







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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