

INSTRUCTIONS FOR:
BMW V12 TIMING KIT
 MODEL NO: **VS4564**

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. SAFETY INSTRUCTIONS

- WARNING!** Ensure Health and Safety, local authority and general workshop practice regulations are adhered to when using tools.
- 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.
- DO NOT** attempt to start engine or move vehicle whilst in gear with locking devices fitted.
- Always display warning notification on steering wheel when locking engine components.
- 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: Always refer to the vehicle manufacturer's service instructions, or proprietary manual, to establish the current procedures and data. Product Information Sets detail applications and use of the tools, with any general instructions provided as a guide only.



2. APPLICATIONS

BMW V12 M70 & M73 Petrol Engines in:
BMW

750i (E32) 5.0 V12 (89-94)
 (E38) 5.4 V12 (94-)

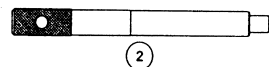
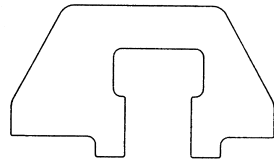
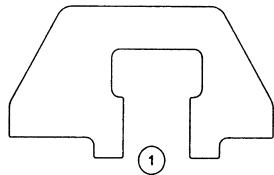
850i (E31) 5.0 V12 (90-99)
 (E31) 5.4 V12 (94-99)

M70 & M73 engines

NOTE: The Cam Setting Plate and Flywheel Location Pin from this kit can also be used on M40 & M43 s.o.h.c. engines - see VS118 Kit.

3. CONTENTS/PARTS LIST

- | | | |
|----|----------|------------------------------------|
| 1 | VS118/01 | Camshaft Setting Plates (2 in kit) |
| 2 | VS118/02 | Flywheel TDC Location Pin |
| -- | VS118/84 | Case + Insert |



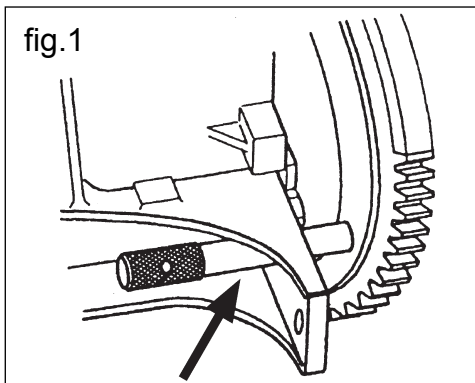
4. INSTRUCTIONS

VS4564 V12 Petrol Engine Setting/Locking Tool Kit
Comprises:

VS118/01 Camshaft Setting Plates (2 off in kit)

VS118/02 Crankshaft TDC Location Pin

WARNING: These timing tools must NOT be used to counter-hold the crank or camshaft for removal/releasing pulleys or sprockets. They are for retention of engine timing position only. Use appropriate Holding Tool.



4.1 Valve timing

To remove the timing chain, the sump pan will need to be removed.

VS118/02 Flywheel Pin (Fig. 1)

The crankshaft is positioned at TDC and 'locked' via the flywheel, using the VS118/02 Flywheel TDC Location Pin.

Check the camshaft timing position as follows -

On M70 engines the dowel pins on the camshafts must be aligned and face towards one another.

On M73 engines notches on the camshafts align to the central top screw on the first cam bearing journal cover.

VS118/01 Camshaft Setting Plates (Fig. 2)

Install the VS118/01 Plates onto the square provided on each of the camshafts. Ensure that the Plates rest fully on both sides of the gasket surface.

WARNING: The tensioner is removed. Care must be taken as it is spring loaded.

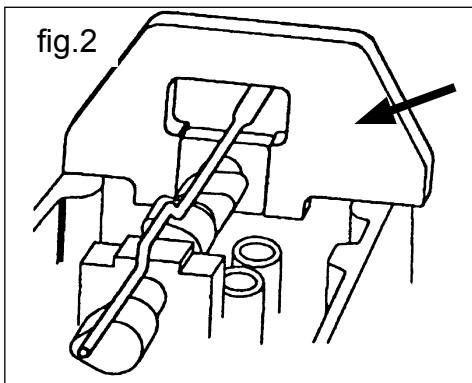
Loosen the tensioner locknut and unscrew adjusting screw a number of turns to unscrew the plug to remove tensioner plunger.

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.

INFORMATION: For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.

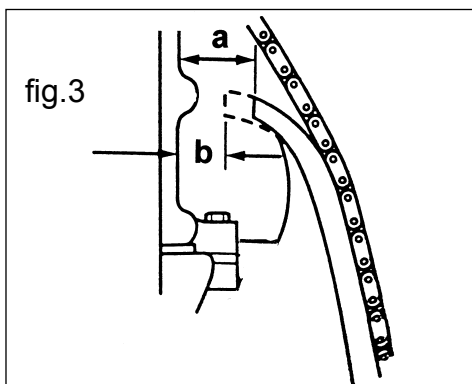


When installing the chain the camshaft sprockets should be free to turn on camshafts. The chain must be taut between sprockets on the non-tensioned side, and should have tension applied before tightening the sprocket bolts.

4.2 Tensioner adjustment

The tensioner is adjusted by unscrewing the adjusting screw until it no longer touches the tensioner rail. The engine is then rotated once in the normal direction of rotation

Measure at position "a" and then push the tensioner rail against the spring force to a stop and measure at position "b". Assess distance "a" minus "b" and adjust the distance with the adjusting screw to 6mm. (rail without sprocket) or 5mm. (rail with sprocket). (Fig. 3)



SEALY Professional
TOOLS
AUTO SERVICE LINE

Sole UK Distributor
Sealey Group,
Bury St. Edmunds, Suffolk.

01284 757500

01284 703534



www.sealey.co.uk



sales@sealey.co.uk