



INSTRUCTIONS FOR
**PETROL ENGINE SETTING/LOCKING SET -
HONDA 1.6, 1.8, 2.0, 2.2, 3.0 S.O.H.C/TWIN CAMS
- BELT DRIVE**
MODEL NO: **VS4656**

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 & 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. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to
instruction
manual



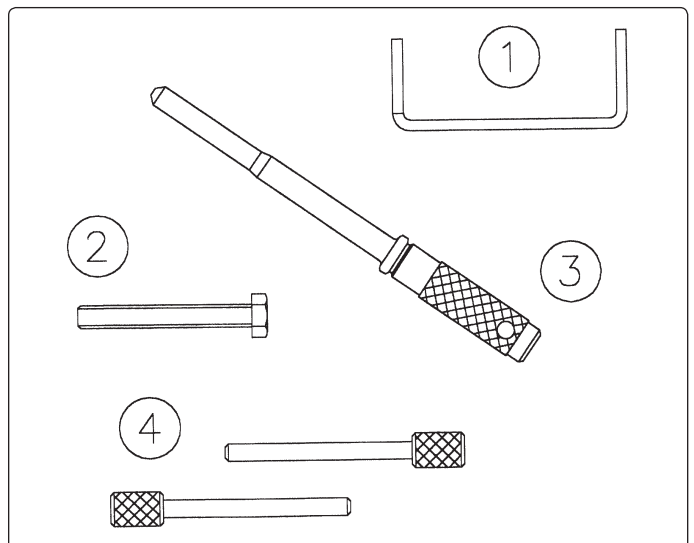
Wear eye
protection

1. SAFETY

- ❑ **WARNING!** Wear approved eye protection. Wear appropriate Personal Protective Equipment. A full range of Personal Protective Equipment is available from your Sealey dealer.
- ❑ **WARNING!** Ensure that Health & Safety, Local Authority Regulations and general workshop practice Regulations are adhered to when using tools.
- ✗ **DO NOT** use tools if damaged.
- ✓ Maintain tools to ensure that they are in an adequate condition for safe use and optimum performance.
- ✓ Ensure that a vehicle that has been raised by a jack is adequately supported. Use axle stands.
- ✗ **DO NOT** attempt to start or move a vehicle whilst in gear and with timing devices fitted.
- ✓ Wear suitable clothing to avoid snagging. **DO NOT** wear jewellery. Tie back long hair.
- ✓ Account for all tools, parts and components being used. **DO NOT** leave these in or near the engine. Return tools to suitable storage after use.
- ✓ When not in use, store in a safe, dry childproof place.
- ✓ Keep children and unauthorised persons away from the work area.
- ▲ **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 correct procedure and data.
- ❑ **WARNING!** The warnings, cautions and instructions in this manual cannot cover all possible conditions and situations. The Operator / user must apply caution and common sense (good practical sense).
- ✓ When timing an engine, always prevent the engine from being turned over. Use a notice and / or inhibit the engine.
- ❑ **WARNING!** Incorrect or out of phase camshaft timing can result in contact between the valve head and the piston crown. This will cause damage to the engine.

2. INTRODUCTION

Kit provides the special tools required when replacing the timing belts on Honda engines. Includes tensioner tools and locking pins.



3. CONTENTS

Contents			OEM Numbers
Items	Part Number	Description	Honda
1	VS4571	Tensioner retaining clamp	14540 P13 003/14540P8AA01
2	VS4360T3	Tensioner adjusting bolt	
3	VS3020.10	Balancer shaft locking pin	07LAG PT20100
4	VS3020.02	Camshaft locking pin (*2 per kit)	007744 0010400
Associated Tools			
---	VSE5048	Crankshaft pulley holding tool	07 JAA 001020A

* These spares are sold as individual tools not as pairs or multiples.

4. APPLICATIONS

Make:	Model:	Year:	Engine codes:					
Honda	Accord	(93-03)	1.6	1.8	2.0	2.2	2.3	3.0
	Accord Coupe/		B16A1	F18A3	B20A1	F22Z2	H23A3	J30A1
	Aerodeck	(93-00)	B16A2	F18B2	B20A4	F22B5	F23F5	
	Civic	(91-96)		F18B4	B20A7	H22A7	F23F5	
	Prelude	(92-01)			B20A8	H22A2	H23A2	
	Shuttle/Odyssey	(95-01)			F20A2	H22A5	F23A7	
					F20A3	H22A8		
					F20A4	F22B8		
					F20A6			
					F20A7			
					F20B3			
					F20B5			
				F20B6				
				F20B7				
				F20Z1				
				F20Z2				
				F20Z3				
				F22A3				
				F22A7				
				F22A8				

5. INSTRUCTIONS

5.1. Balancer Shaft Locking Pin VS3020.10 (Fig.1)

5.1.1. Many Honda sohc and twin cam engines, including those fitted in Rover 600 Series models, have balancer shafts connected to the crankshaft pulley by a balancer shaft belt. During removal and refitting of the timing belt the balancer shaft belt is removed.

NOTE: It is necessary to remove the balancer shaft belt before the timing belt can be removed.

5.1.2. For balancer shaft belt replacement, align both crankshaft and camshaft timing marks.

5.1.3. Remove crank pulley and lock the tensioner arm.

5.1.4. Push the tensioner away from the belt and remove the belt.

5.1.5. Check both crankshaft timing marks and balancer shaft sprocket timing marks align.

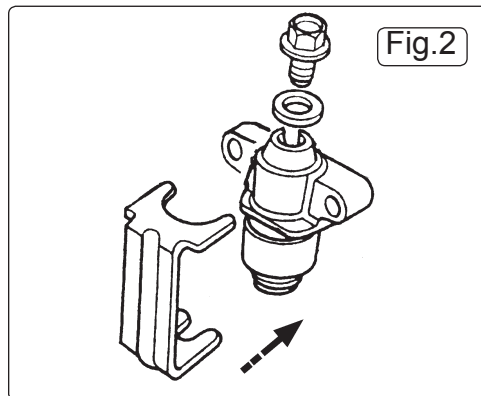
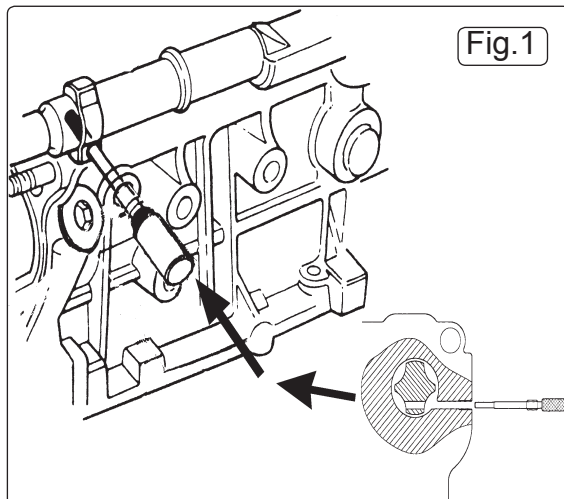
5.1.6. Align the front balancer shaft sprocket groove with the pointer on oil pump housing.

5.1.7. Remove cylinder block plug and insert VS3032.10 Locking Pin.

5.1.8. Carefully rotate the rear balancer shaft until VS3032.10 locates in to the shaft.

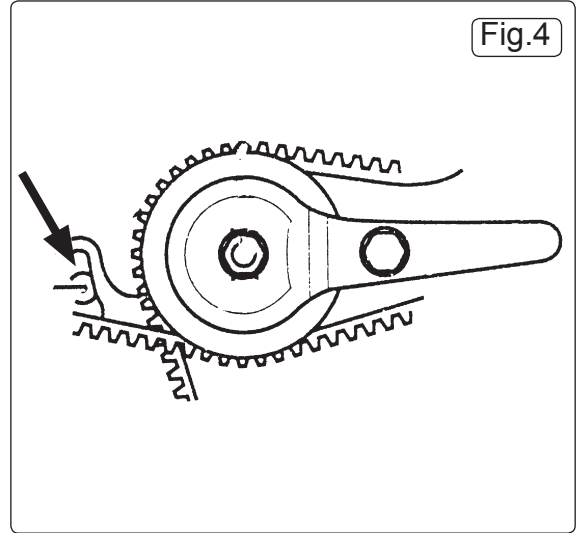
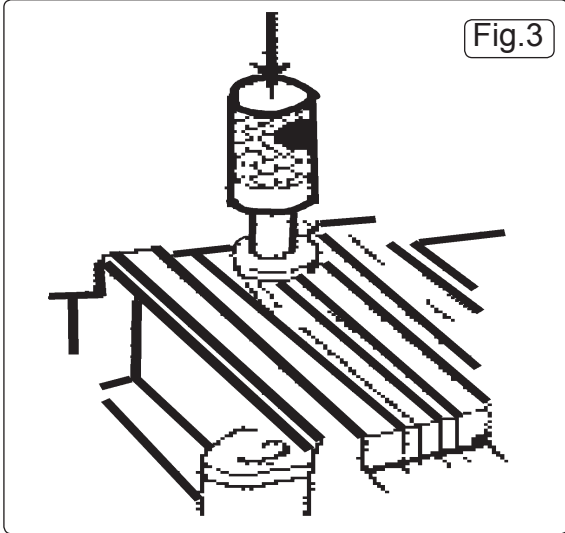
▲ **IMPORTANT:** VS3032.10 should enter the hole to a depth of approx. 75mm.

5.1.9. Fit balancer shaft belt and remove the Locking Pin. Tension the balancer shaft belt.



5.2. Tensioner Retaining Clamp VS4571 (Fig.2)

- 5.3. Timing belt replacement on 2.2 VTEC H22 engines requires the removal of the automatic tensioner.
- 5.3.1. In order to re-install the tensioner in its retracted condition it is essential to use VS4571 Clamp.
- 5.3.2. To retract the tensioner plunger carefully clamp the tensioner upright in a vice (maintenance bolt pointing up) and remove the bolt.
 - ▲ **IMPORTANT:** Ensure no oil has spilled out of the tensioner. If oil has leaked out, drain the unit completely and re-fill with engine oil (0.22 fl.oz.).
- 5.3.3. Insert a screwdriver into the top of tensioner and turn **clockwise** to compress the tensioner. Retain in the retracted position by fitting VS4571 Clamp and install the maintenance bolt.
- 5.3.4. Ensure the crankshaft and camshaft timing marks are aligned and fit the new belt making sure it is taut on the non-tensioned side.
- 5.3.5. Install the automatic tensioner and remove VS4571 Clamp to allow plunger to operate.



5.4. Camshaft Locking Pins VS3032.02 (Fig.3)

- 5.4.1. On Honda B16/18/20 twin cams, and engines in Rover 216Gti/416Gti models, the camshafts are locked in position, on their timing marks, by the use of two locking pins.
- 5.4.2. This method of locking is achieved by inserting VS3032.02 Locking Pins through assigned holes in the camshaft housing, engaging and locking the camshafts in position.

5.5. Tensioner Adjusting Bolt VS4360T3 (Fig.4)

- 5.5.1. VS4360T3 is used to 'lock' the tensioner away from the belt during the timing belt replacement applications on those engines detailed in Applications.



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 this product.

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



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