

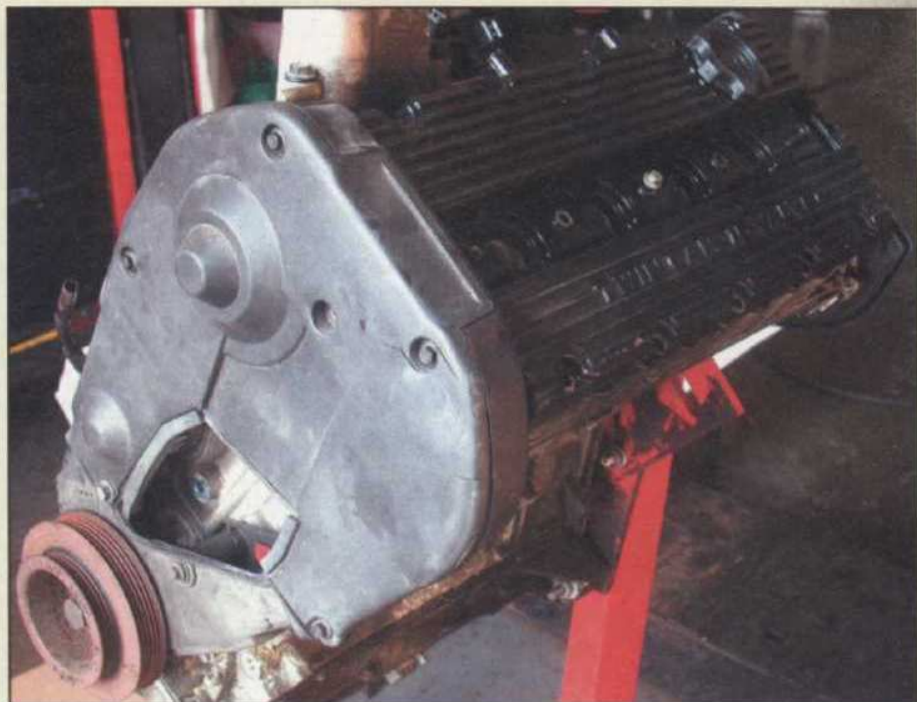
# K-Series VVC



**Mike Satur shows Rob Hawkins how to dismantle the VVC K-series engine found on many a top of the range MG and Rover.**

**T**op of the K-series four-cylinder range is Rover's variable valve control derivative that promises more bhp than its standard associate (160 over 118) and a better delivery of power and performance.

This high performance engine first appeared in 1996, displacing 1.8-litres. The K-series had already been exposed for some years, the MGF had been released the previous year and it was the MGF that received the engine and the most publicity. However, you'll also find the VVC lurking under the bonnet of the old Rover 200 BRM, 200 Vi, 25



GTi and MG ZR160. Outside Rover, the likes of Caterham and Lotus have also made use of this engine along with kit car manufacturers such as GTM in their mid-engined Libra and Spyder.

The K-series, whether in VVC or

non-VVC form, features an aluminium cylinder head and block, piston liners (wet), a five main bearing crankshaft that's located by a main bearing carrier. The main bearing carrier is located using the head bolts that run all the



**1** Remove the camshaft cover. This is fitted with 15 8mm bolts. Renew the gasket. When refitting, do not over tighten these bolts as they will damage the alloy camshaft carrier.



**2** Move to the rear of the engine and remove the plastic belt cover, fitted with four 8mm bolts. The rear bottom 8mm bolt also includes a plastic guide clip for the plug leads



**3** Turn the front crankshaft pulley to safe mode (see Rebuild Tips). Remove the clutch, fitted with six 10mm bolts, followed by six 13mm bolts for the flywheel. Recheck the timing is still in safe mode.



**4** Remove the front timing cover. This is fitted with four 8mm bolts at the top of the cover. There is also a 10mm bolt, which needs slackening, but doesn't need to be removed.



**5** Slacken the 8mm bolt for the timing belt tensioner to release the tension on the belt. Undo the 8mm allen key bolt in the centre of the tensioner and remove the tensioner pulley.



**6** Fit a camshaft locking tool, making sure the markings on the exhaust cam are horizontal and a marking on the inlet cam pulley is horizontal to the exhaust. Crack the 17mm pulley bolts at the front and remove. Slacken the rear camshaft bolts, but don't remove yet.