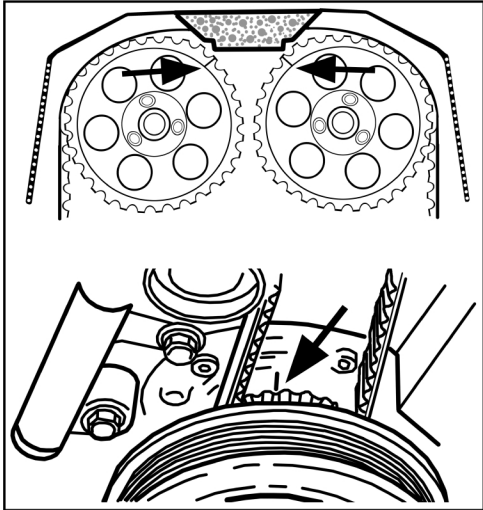




V 500 Instructions

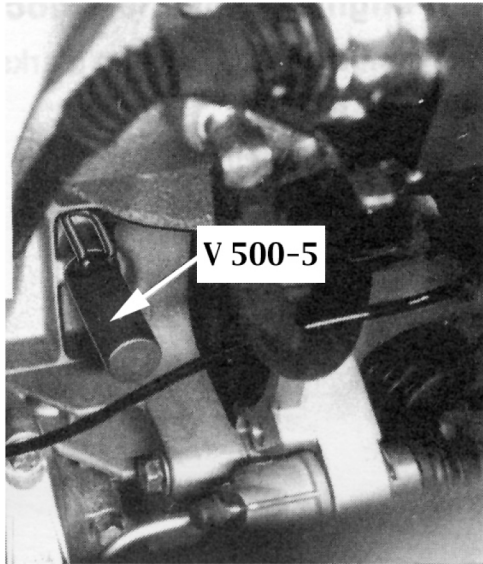
Camshaft Cover Removal

Before removing the timing belt, turn the engine clockwise until the timing marks are aligned.



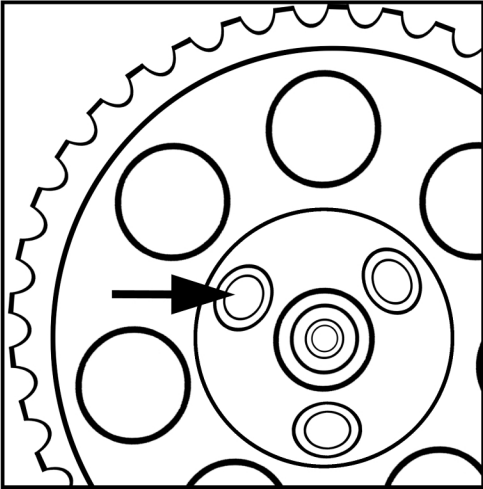
Remove starter and the plug, then install V 500-5.

Turn the engine gently counterclockwise until it stops against the tool.



Before removing the camshaft sprockets in the next step, you must mark the position of the sprockets in relation to the camshafts since the sprocket holes are elongated.

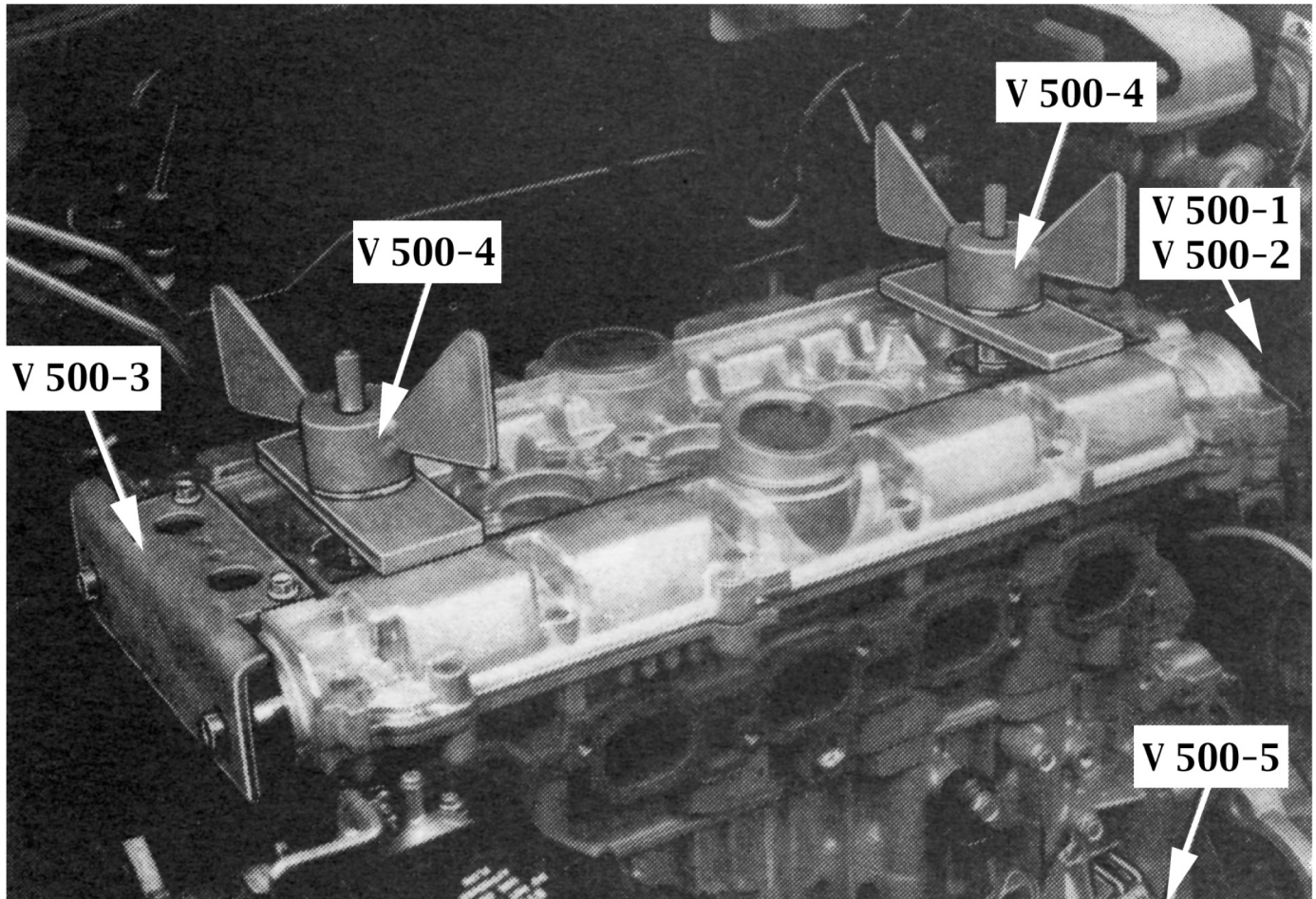
Also mark the intake and exhaust sprockets since they are different.



Install the **V 500-1 / V 500-2** assembly to the rear of the engine while hooking the L-shaped bracket over the cover. Leave the center bolt loose until the tool is aligned with the camshaft slots. Once the camshafts are aligned, install the 2 captured bolts and tighten the center bolt. After marking and removing the camshaft sprockets, install the **V 500-3** to the front using the previously removed spark plug cover bolts.

***NOTE: The V 500-3 will not fit on some of the newer models that use cam variable timing**

Install the **V 500-4** press tools to the #1 and #5 cylinders (#1 and #6 on six cylinders). Leave a clearance of a few millimeters between the tools and the cover. After removing the camshaft cover bolts, carefully tap the cover up at all four corners to break the seal. Turn the handles on the **V 500-4** counterclockwise a little at a time to ensure an even lift.



Camshaft Cover Installation

To install the camshaft cover, use the reverse procedure with the following notes:

1. The mating surfaces of the cover and head must be completely clean. The camshaft cover also acts as the camshaft bearing cap so **DO NOT** use a metal scraper--or **ANY abrasives**--on the cover. Also thoroughly clean the guide pins.
2. Secure the camshafts to the cover using the **V 500-1**, **V 500-2** and the **V 500-3**. Verify that the crankshaft is in the correct position using the **V 500-5** as before. Pull the cover down evenly using the **V 500-4** press tools. Tighten the bolts to **13 ft.-lbs (17 nM)** starting in the middle of the cover and working outwards. Remove the **V 500-3** and **V 500-4**'s. The **V 500-1 / V 500-2** assembly and the **V 500-5** should remain in place until the timing belt has been installed.

Camshaft Seal Replacement

You must mark the position of the camshaft sprockets in relation to the camshafts since the sprocket holes are elongated (see picture on previous page).

Use the **V 500-1 / V 500-2** assembly to hold the camshafts in position while replacing the seals.