



## 'Ask Hanip'



**H**i Hanip, my 2004 Toyota Vios is fast approaching 80,000km and I was wondering what other parts must be changed or replaced when its time to service my car.  
– Randy Tan

**Hanip:** Hi Randy, I get asked by many of my customers this same question as well. Modern engines use overhead camshaft/s and they are linked to the crankshaft via a timing belt. With this



arrangement, the reciprocal operation of a 4-cycle engine provides you with all the power that you need.

This belt is a rubber belt made of a mixture of various materials to give it strength, a certain resistance to heat, enough flexibility to make the loop when going round the sprockets and tensioners as well as some resistance to moisture.

Manufacturers recommend a replacement of the timing belt at an interval

of 80,000 km as the material of the belt would have hardened and the top surface turned glossy at that mileage. At this stage it is vulnerable to cracks and will eventually lose some of its tooth. Neglecting these signs of wear-and-tear or a recommended replacement at this mileage may cause misalignment of the camshaft and crankshaft.

When the 2 vital shafts are misaligned, there is a very high probability of the valves hitting the piston. Eventually, the valves will bend and in some cases, the valve guides and piston top will also be damaged. This will result in a costly repair like replacing the cylinder head, valves and pistons.

By replacing the timing belt at the recommended mileage, we can avoid incurring such costly repairs.

