

Holden Alloytec V6: Oil Pickup Blockage

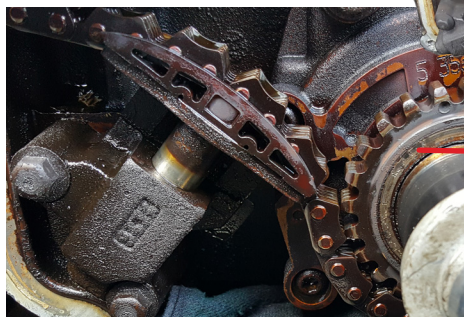
One of All Head Services customers has posted on this story of a VZ Commodore Crewman with an Alloytec V6 engine that failed to start one morning.

After checking the basics such as fault codes (there were none), ignition and fuel (both OK). A compression test showed that it had no compression. The rocker covers and the timing cover was removed and to check the valve timing. The timing chain guides and chains were worn out, and it was found that the cam timing had jumped six teeth on the primary chain. The primary chain guide and tensioner pad were both worn down to the metal, and the chain tensioner was fully extended. Not an uncommon occurrence for this type of engine and it was safely assumed that this was the cause of the no start situation.

Due to the amount of oil sludge build up in the cylinder heads and timing cover it was decided to remove the sump and inspect it and the pickup for potential blockage. When the pickup was checked it was found to be nearly completely blocked as you can see in the picture below. If the pickup had not been inspected another catastrophic engine failure would have been soon.



The picture on the left is the oil pickup as it was removed from the engine which is nearly completely blocked as compared to a new one on the right.



The primary timing chain has worn out completely, but this is not the only problem.


It is possible to remove the sump in these vehicles without removing the engine or the K Frame.

1. Remove the two bolts securing power steering lines to K Frame cross brace.
2. Remove the one bolt securing the auto transmission cooler pipes to RHF of K frame.
3. Remove both of the engine mount nuts from under the vehicle.
4. Remove the two sway bar mounting bolts and move power steering rack backwards.
5. Jack up the engine under bell housing (use a wooden block) slowly until it touches firewall.
6. Remove the sump bolts and remove the sump and pick up sliding it between the block and the K Frame.



This saves a lot of time and no exhaust pipes, fuel lines, radiator hoses etc. need to be removed to do this!

Like other modern engines, the Alloytec V6 is well known for its ability to turn oil into sludge, which contributes to the wear in the timing chains, for which it is also infamous. The recommended interval for oil changes is 15,000km, which might be ambitious now that these engines are getting older. They also do not have a conventional oil pressure warning light. They have an oil pressure sensor connected to the ECM which sends a message to the instrument cluster and logs a fault code if the oil pressure is low. This vehicle showed no messages and had not logged a code.

In this case the oil pickup and sump were cleaned and refitted. A new timing chain kit, and reconditioned cylinder heads were fitted and the vehicle is now running as good as new. It might pay to encourage your customers to get the oil changed earlier and if you have to do any major engine repairs, check the oil pickup. 



We would like to thank Geoff, from All Head Services, for sharing this practical information and photos www.allhead.com.au