Alternator Clutch Pulley

The importance of Alternator clutch pulleys becomes apparent when we look at some other consequences of their failure.

An article in a recent "TAT" magazine was having a look at an A/C issue that was a reoccurring problem in Golf Diesel 2.0 Litre "TDI". The compressor which is a direct drive type had failed twice with no obvious issue with the Compressor or other parts of the A./C system as the compressor oil was clean. The front hub of the compressor had failed with loss of connection between the pulley and shaft. The compressor turned normally when turned by hand so it was not seized.

This would normally be assumed to be a compressor failure due to high head pressures which could be caused by a number of issues, poor airflow over the condenser, a blocked or faulty TX etc. Because this was the second failure with no obvious A/C issue the repairer looked further and found that the Alternator Clutch pulley was seized. A rumbling sound that was worse at idle and low revs was also noted and attributed to the seized pulley.

The seized alternator pulley had in turn led to the belt whip, vibration and "shock load" that is normally absorbed and dampened by the clutch pulley being transferred by the belt into other components in the belt drive line with the consequence of Compressor clutch failure.

We have also heard of a similar issue with a locked up dual mass flywheel potentially causing the Compressor clutch to fail in a Mercedes Vito Diesel.

Valeo

Genuine Valeo **A09-9411GQ**
Direct Drive Compressor with external
Displacement control to Suit VW Diesel
TDI 2.0 Litre Golf