



TECHNICAL SERVICE BULLETIN

Auto Air Products

TSB #: TSB 50 8-11

INITIAL
WHEN

DATE: 19/8/2011

READ:

SUBJECT: HOLDEN VE /WM NEW COMPRESSOR "RUN IN" PROCEDURE AND TORQUE LIMITER OPERATION

As you would be aware by now that the Holden VE and WM V6 and V8 use a Denso 6SEU16C non cycling, clutch less (no magnetic coil), variable stroke, electronic control valve compressor. The compressor will be operating internally whenever the engine is operating.

When the A/C off button is activated the compressor electronic control valve via a signal from the HVAC (HCM) module will force the compressor to go to minimum stroke position where the pistons are barely operational, but all the compressor internal mechanism is still operating.

Precautions have to be taken when working on a vehicle that uses this type of compressor.

The belt pulley is made of plastic to reduce weight, ensure that this pulley is not damaged or cracked through accidentally dropping it or transit damage. Inspect the compressor pulley before installing compressor.

The compressor has safety device against drive belt breakage called a "torque limiter". The torque limiter is a sintered metal insert that is connected to the compressor input shaft and the "front plate" to the pulley. If an issue exists where the compressor internals are locking up or binding the sintered metal insert of the limiter will break, disconnecting the compressor input shaft from the plastic pulley. The compressor pulley will still turn but the compressor input shaft will not.

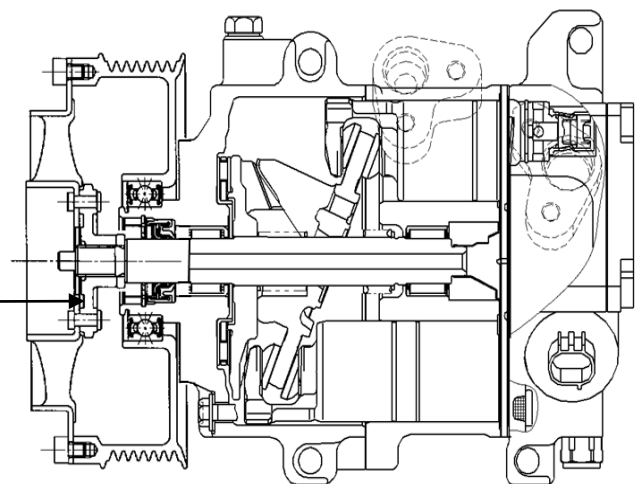
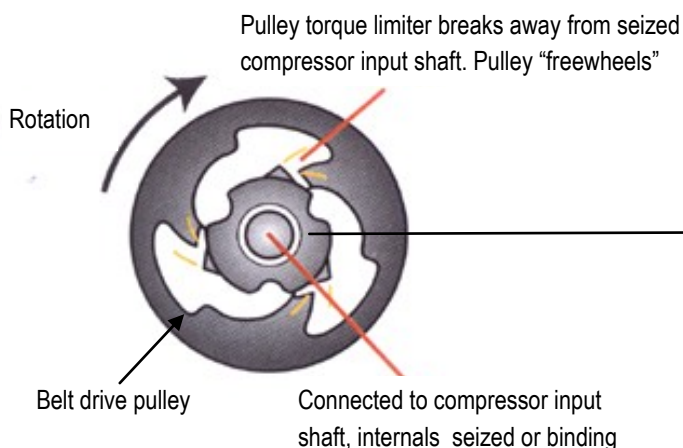
Carry out a visual inspection to see if the torque limiter has broken as the compressor will no longer operate. Customer complaint will be the A/C is not cold. Replace compressor, sub cooler insert and TXV carry out system check to establish the root cause for the original failure.

If the A/C has no refrigerant charge the vehicle can be started and moved as long as the A/C is off, engine RPM below 2,000, and engine only running for 15 minutes. This advice is specifically for body / panel shops.

If a new compressor has been fitted carry out "run in procedure". Charge the A/C system to specification, hold engine rpm at 1530 for 1 minute, A/C on, blower fan at highest speed, max cool. After the initial procedure has been completed the vehicle can now be driven normally.

Vehicle manufacturers using this design of clutch less compressor design are BMW, Mercedes Benz, Skoda, Seat, VW and Toyota.

Footnote: The Holden series 2 VE introduced August 2010 has reverted back to a "clutched" style compressor using a magnetic field coil to engage. A/C off will result in no compressor engagement and no internal movement. The compressor will still use the electronic control valve (ECVD) operated via the HVAC control module (HCM).



Courtesy of Denso — Holden VE series 1. Denso 6SEU16C