2014 - 2016 Cadillac VSport and ATS-V: GM TechLink: Twin Turbocharged V6 Engine Sounds

GM TechLink
January 29, 2016

A noise condition may be heard on some 2014 - 2016 Cadillac models equipped with the twin turbocharged V6 engine (RPO LF3, LF4).

Cold Start Rattle Sound at Idle

On some 2014 - 2016 Cadillac CTS-V Sport and XTS models equipped with the twin turbocharged 3.6L V6 engine (RPO LF3), a rattle sound may be heard coming from the turbocharger when the engine is cold. This is a cold start noise at idle.

Click below to listen to an example of the rattle sound. (Fig. 15)
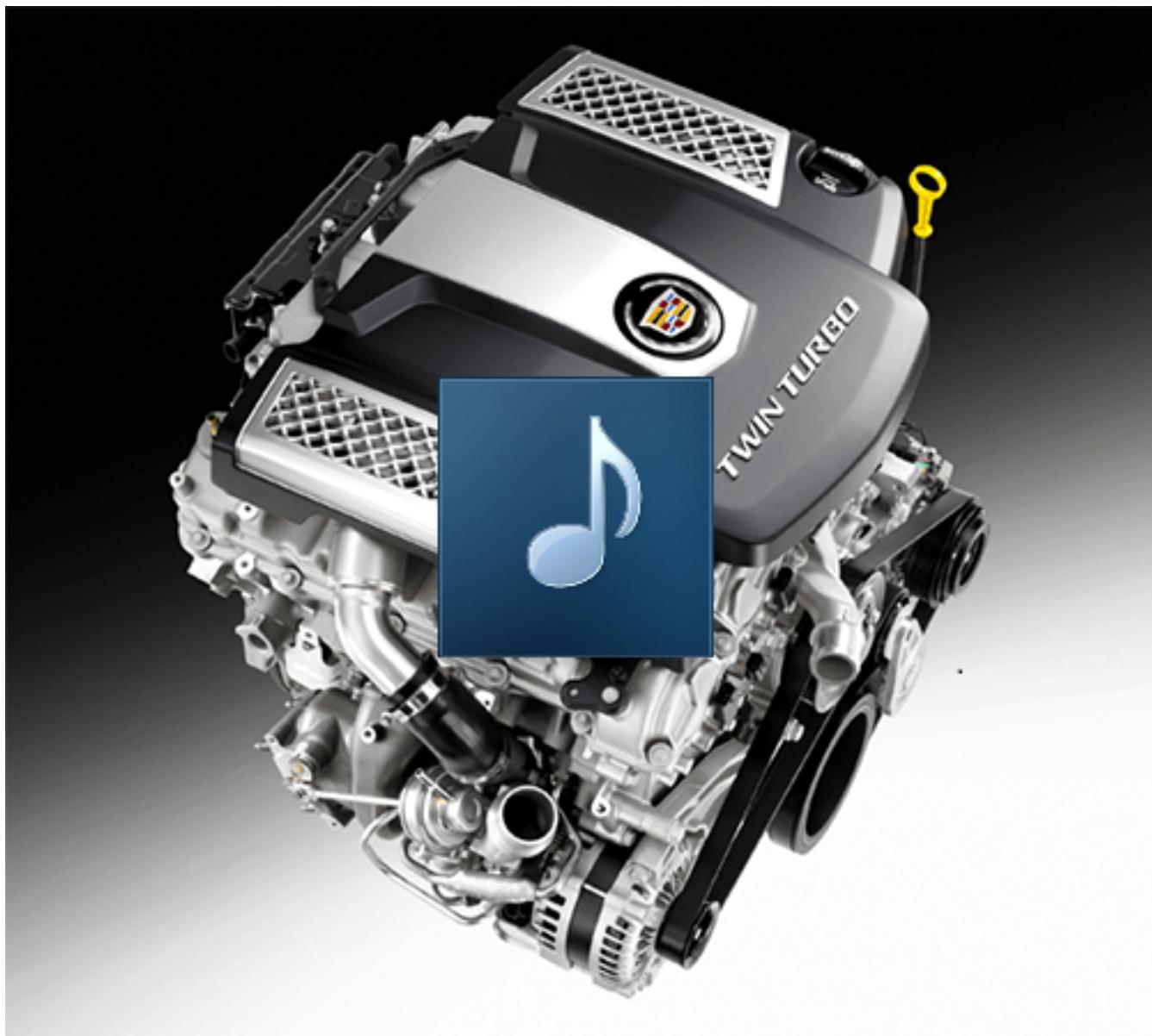
Fig 15

TIP: Do not confuse this noise with a similar noise heard when revving the engine.

If the rattle sound when cold is from the turbocharger, and the noise is unforced, there is a new turbocharger assembly available with a revised spring for the wastegate to limit movement when cold.

The new part numbers are 12666538 (turbocharger assembly – LH) and 12666539 (turbocharger assembly – RH) for the CTS-V Sport and 12666540 (turbocharger assembly – RH/LH) for the XTS. If the vehicle already has

these part numbers installed, do not replace the part again.

Rattle Sound when Revving the Engine

A brief rattle or tick sound when revving the engine may be heard on some 2014 - 2016 CTS Sedan (VIN A) and XTS models equipped with the twin turbocharged 3.6L V6 engine (RPO LF3) and 2016 ATS-V models equipped with the twin turbocharged 3.6L V6 engine (RPO LF4).

This sound is heard when the vehicle is in Park or Neutral and can sometimes be heard at the beginning or end of vehicle acceleration while in Drive. The brief rattle sound is a normal characteristic of the vacuum actuated turbocharger. Do not replace the turbocharger assembly for this condition.

Click below for an example of this normal turbocharger sound. (Fig. 16)

Fig 16

– Thanks to Bryan Salisbury

Online URL:
https://www.cadillacvnet.com/knowledge-base/article/2014-2016-cadillac-vsport-and-ats-v-gm-techlink-twin-turbocharged-v6-engine-sounds-5.html