



Tech Help Bulletins



At Diesel Help Australia, we provide several services including over the phone diesel diagnostics. From time to time we will have cases that have been repetitive and when that happens, I will then create a bulletin.

Clinton Brett

At Diesel Help Australia, as well as training we also provide over the phone diesel diagnostics. We average 5 cases a day some of which have been repetitive. When we experience a repeat of the same symptoms and faults 3 times or more for the same vehicle application, we create a technical bulletin. Our expanding library of 100 plus dedicated diesel bulletins are accessible for members via their login. Our educational and regularly updated library has been able to provide them with a quick answer and some of the bulletins are linked to our online training videos. Here is an extract from one of our popular bulletins.

Bulletin Number: TB1074 Subaru starting and stalling no fault codes

Bulletin Date: October 17th, 2019

Models: EE20 – 2 Litre – 4 cylinders both Outback and Forester models. This vehicle was 3/2010 with 193193kms. We've experienced several with this fault this year anywhere between 50,000 and 200,000kms.



Symptoms: When vehicle is cold, vehicle starts then stalls- this symptom repeats until vehicle is driven and doesn't seem to happen at operating temperature. Customer believes problem has been since vehicle service 'Ever since you'... the fuel filter was changed at that service (genuine filter used).

Failure/Issue: Stretched timing chain.

Diagnosis and/or early detection of the fault: Explanation from recent member. Scan tool diagnostics. Read current data but have no good data to compare with – data appears normal from my experience. Have run eliminator fuel and Checked fuel sample – ok. Have rechecked fuel filter fitment and O rings. Visual inspection of all piping and hoses – ok. Having experienced this fault twice this year on similar models with similar kms, it was worth testing this possible failure first. Especially since the member had confirmed it was not a fuel issue. The member ran the eliminator to rule out fuel supply issues and confirmed the fuel system was in good working order from the data at hand. A procedure quite well known when diagnosing Nissan Navara YD25 engines with stretched chains is to disconnect the cam sensor whilst the engine is still in a cold condition and attempt to start the engine. If the engine continues to run without stalling, this is one diagnostic technique to use. A cold engine is one less than 26 degree Celsius. Once warm the engine is more likely to continue to run even when the cam sensor has been disconnected.

By disconnecting the cam sensor, the engine ECU cannot recognize a signal thus the engine will continue to run. Be aware that in some cases when a chain is very stretched, it may cause engine damage if the engine was to start and continue to run. Therefore, I strongly recommend and prefer that you test the correlation between the crank and cam angle sensor. This way we can see the wear with minimal chance of damaging the engines during a simple test.

Solution: Remove and replace timing chain including tensioners, idlers, guides and the chain itself and preferably with genuine replacement parts. Be sure to inspect the oil for over filling with diesel, another symptom of this fault and common misdiagnosis of a failed DPF or DPF faults.

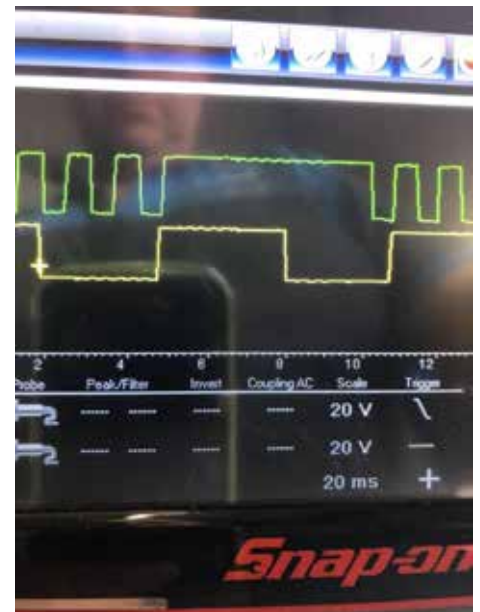


Image shows failed chain scope reading.

Special notes: When confirming if this fault (stretched timing chain), is related to over filling of diesel fuel in the sump also known as dilution of the sump oil. Be sure to read on the scan tool when the



Image shows known good scope reading.



previous DPF regeneration tool place. What I am referring to is that when a DPF performs a factory present regen, the kms of when this occurred will login to the computer. If you find the sump is filling rapidly like one recent case where the sump filled with diesel fuel in a matter of 20 minutes at idle and the last DPF regen was performed 500 kms ago, then the fault is not due to over regenerations and further investigations are necessary.

Please be aware of other faults that can cause over filling of the sump.

- Injector return washers leaking
- Injector seat washers leaking
- Injectors failed/worn
- Valve clearance incorrect
- Excessive DPF regenerations
- Uneven spread of carbon in the intake manifold (half dirty/half clean)
- DPF delete/removal
- Incorrect oil

For more info go to www.dieselhelp.com.au

Castrol expands range with new European approvals.

With manufacturers doubling down on their efforts to evolve engine technology to meet strict emissions requirements, there has been a dramatic increase in new lubricant specifications intended for use with such highly engineered engine technology.

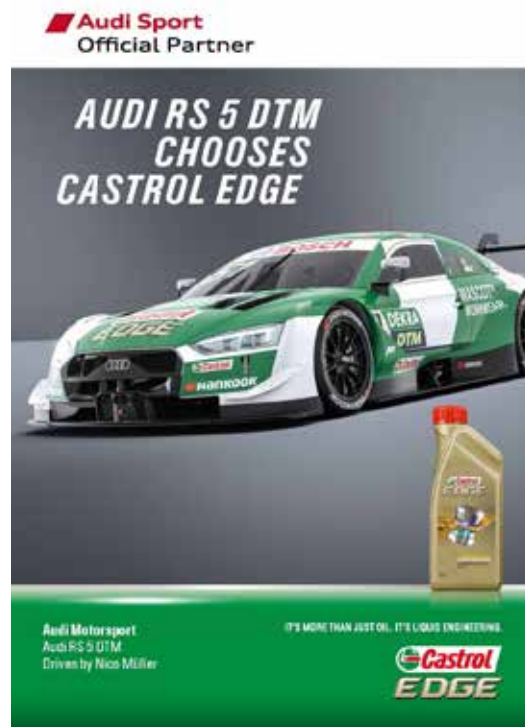
With Volkswagen Group recently defining a handful of new approvals including VW 508 00, VW 509 00 and VW 511 00, Castrol is excited to announce the launch of two new premium Castrol EDGE Professional product variants to meet the demands of late-model Volkswagen Group vehicles requiring these specifications.

EDGE Professional LL IV FE 0W-20 is a full synthetic engine oil carrying VW 508 00/ 509 00 approvals and has been developed by Castrol to exceed VW's fuel economy specification. In fact, in the required test PV1451 to pass the demanding VW specification VW 508 00/509 00, Castrol EDGE Professional LL IV FE 0W-20 delivered more than 4% fuel economy benefit when compared to the test's reference oil. EDGE Professional LL IV FE 0W-20 is suitable for use in a range of Volkswagen Group vehicles, including 2.0 TFSI 140 kW and 3.0 TDI CR 160 kW engines.

Castrol EDGE 5W-40 M meanwhile is a full synthetic engine oil carrying VW 511 00 and Porsche C40 approvals, making it suitable for several new high-performance models from VW, Audi & Porsche. This includes the emerging requirements of new Audi RS6, RS7 & RSQ8 models, as well as Porsche models fitted with GPF's (Gasoline Particulate Filters).

When it comes to European vehicles, Castrol knows a thing or two about unlocking true engine performance. It's a key reason why Castrol plays an active role in developing products for Volkswagen Motorsport and Audi Sport vehicles, serving as an Official Partner of Volkswagen Motorsport and Audi Sport. Castrol is also serving to push boundaries as it leads the development of advanced e-fluids for the Volkswagen ID.R car and its electric motorsport programme.

To discover the full Castrol range visit www.castrol.com.au or speak to their Technical Helpline team on 1300 557 998.



Diesel Help Australia
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The Ultimate CRD Diagnostics course is in video format divided into 9 lessons. Each section of the training ends with a series of short questions to consolidate your learning.

A professional development certificate will be generated on completion of this course.