

DTNA Solutions > Discussions and Feedback > Tech Talk

> 8.0L LPG ramping up to 4300RPM by it self



 Mic_Loschuk
Knuckle Buster

04-07-2021 03:54 PM

8.0L LPG ramping up to 4300RPM by it self

Vehicle Information

VIN: 4UZABRE23GCGT7842

Model: B2 106 CONVENTIONAL CHASSIS

Model Year: 2016

Mileage: 74444 kilometers

Make: FCC

Are you currently seeing this same issue on other DTNA vehicles at your location?: no

Base Model: B2 106 CH

Vehicle Systems Involved

POWER TRAIN

VEHICLE SPEED CONTROL

Unit came in for CEL and unit revving up on it own and jumpy acceleration.

Active engine code for ECM mass air flow torque calculation high (2432/15), T/S for this code as listed

- no other related or engine codes and no history of 2432/14
- Sprayed down intake and used propane sniffer around intake assembly (limit expectation due to access but no issues)
- No modifications visible (good), no damage, kinks or restrictions found on exh system (good), no damage or issues with throttle plate (moved freely on key off and hold during key on), MAP sensor o ring damage (quoted to replace), MAF sensor and pipe it mounts in are damage (quoted to replace), engine harness looks to have been recently replaced (no damage to pins at harness side MAF and MAP), air filter is clean and new but housing is damage and filter not fully snugged down (quoted to replace full assembly)
- MAP reading 4.93PSI (key on and engine off)
- MAF reading 4.2-4.5lb/hr (key on and engine off)
- ECM was loose on top of manifold minor rubbing on ECM and oil cap was missing. Oil level looks ok and clean (possibly recent service)

Noticed during drive in unit almost throttles up and pulls on its own. Let unit idle in the shop and found around the 5Hr mark the unit would ramp up by it self to 4300RPM and hold there. Also during manual snap of throttle unit ramps to requested RPM then flutters back up as it drops (example would be 1000RPM, drops to 800RPM then back to 1000RPM then back to idle), then slow to fully drop back to idle. Do not believe this is related too 2432/15.

Charted Accelerator pedal position – engine (j1939 (high)), Accelerator pedal position 2 – engine (j1939 (high)), throttle position 2 – engine (j1939 (high)), throttle position – engine (J1939 (high)), engine desired throttle valve 1 position – engine (J1939 (high)), and engine speed – engine (j1939 (high)).

During randomly rev up, found accelerator pedal position at 0%, and throttle and desired throttle reading 36.4% (normal reading 14% at idle), 2432/15 come back active, no throttle response (unit can only rev to 3000 with pedal max), and have to shut down unit to get unit to reset. Also when reving unit as soon as you release the pedal RPM's drop then pop up again another 200RPM then slowly drop back. Unit is also showing engine is low idle govnor/ no request in torque template.

Customer brought a doner unit Vin - GP2967 (unit with no issues), swapped throttle valve assembly, ECM, TSM and MAF sensor, unit a bit ruffer to start (longer crank time), idled unit for 5 minits with same issue.

I am not to sure what I am missing but from what I cant see the engine is not seeing any accelerator pedal input but engine demands throttle. Seems like a nice controlled rap up as if its a high idle but unit indicates its in a "low idle gov" state. During intal start with original parts and doner parts, unit has a squeal under intake manifold and during key on engine off after running for the first few mins? Im almost leaning more toward unit having issues regulating fuel flow.

Any thought or ideas would be great.

Add tags

 log of unit acc.DrumrollLog 



0 Kudos

Reply



Michael_Palumbo

King Pin

04-07-2021 07:12 PM

Where you using the 8.0 TS guide. It is under DTNA Resources, then FCCC Info and Technical Support, then FCCC Engines and Technical Support.

Whether you think you can or you think you can't, you're right. — Henry Ford

Add tags



1 Kudo

Reply



 Mic_Loschuk
Knuckle Buster

04-08-2021 12:59 PM

T/S above is from them manual.

Add tags



0 Kudos

Reply



 Kyle_Siebert
Optimus Prime

04-07-2021 07:32 PM

Spray either around intake manifold connections with it running. If it suddenly revs up you have found the intake leak. That's what it sounds like. You could also buy fog machine and fill the intake to check for leaks that way. Does the unit have vacuum brake booster? Is that holding a reservoir of vacuum with the engine off. You could also use a vacuum gauge to measure vacuum of the engine while it's running erratic.

I just had this same complaint with my Mercury sable. Would run poorly and then suddenly rev up. A vacuum hose fell off the intake. Sprayed the intake with little bursts of ether till I heard it rev. Checked the area where I sprayed with ether and found the vacuum hose off on the intake after the throttle. Probably 10 seconds to find with ether/ starting fluid.

Add tags



0 Kudos

Reply



 Mic_Loschuk
Knuckle Buster

04-08-2021 12:59 PM

Just tried ether and brake clean to get a more direct shot under the manifold, no change in engine rpms.

Add tags



0 Kudos

Reply



 Keith_Jordan1
Lube Tech

04-08-2021 10:10 AM

Check for possible in range coolant temp sensor failure, I.E. sensor reads -35 when it really is 110 degrees.

Have also ran into PCV valve problems. I would question the MAF reading KOEO it should be 0 or very close.

The MAP seems off as well, common V-ref or signal return?

Add tags

[Reply](#)**Jesse_Gutierrez**

Solutions Pro

04-08-2021 01:30 PM

A very common issue on these engines is under the upper intake manifold , there is a access cover and this cover will leak over time , there also happens to be a fuel block off fitting on the rail located right under this intake cover will also happens to leak from time to time ...

Add tags

[Reply](#)**Nathanael_Abney**

Lube Tech

04-08-2021 03:42 PM

did you perform the throttle actuator control module(TAC-gm's name) relearn procedure? These engines are very similar to gm's gen 3 LSx engines. Although these symptoms seem a little extreme compared to the gm trucks they would experience similar issues after cleaning a sticking throttle body, and even replacement of the TAC or throttle body would not cure it as it is from a bad learned value. I will admit I have not seen idle hang that high on gm trucks because of this though. If you dont have a scan tool that can perform the tac relearn, you can remove the ecm and tac battery fuse with ignition on(do not remove ignition power fuses for these). Then cycle key off for 5 min. Reinstall fuses and restart engine and do not touch the throttle for 3-5 min so it will relearn idle. This may set a low voltage/communication fault but should not stay active after running the engine. Simply removing battery power with key off will not clear the learned values, as the ecm is already asleep and can take up to 3 days to clear the keep alive memory. What is the maf reading when the engine revs up and the fault becomes active? Does it go to zero? If the maf faults to zero the gm trucks were supposed to default to 2500rpm and no throttle control, this could also happen with a maf/throttle mismatch code that is similar to the one you describe. Also how badly damaged is the air

cleaner/intake ducting? A bad leak downstream of the maf but upstream from the throttle body would usually cause the maf/throttle mismatch code to go active. Another note, the pcv system in these engines relies on the oil fill cap and dipstick to seal the crankcase, there will be a major vacuum leak with either of these missing. that being said 4300 rpm is a lot for just a vacuum leak there would have to be some type of fuel extra fuel entering the engine as well. Hopefully this info is helpful although do keep in mind this is info i know from working on the gen 3 LSx gm trucks, so some things might now be different on the freightliner side but i do know they are very similar as its the gen 3 small/big block design that psi purchased from gm.

Add tags



2 Kudos

Reply



Jesse_Gutierrez
Solutions Pro

04-08-2021 07:45 PM

These 8 liters do not have a throttle learn procedure, simply install the throttle body and run it , question have you verified fuel pressure, I normally connect a manual gauge and compare my guage reading to my fuel gauge reading on my icu they are normally very close . This also helps determine if I have a fueling issue or need to go in a different direction . I am curious to know what your fuel pressure is doing when this event occurs

Add tags



0 Kudos

Reply



Mic_Loschuk
Knuckle Buster

04-10-2021 05:52 AM

Customer ended up taking unit as is. So I guess we will never know for sure. Was really leaning toward fuel/fuel regulator issues due to on initial start up I had a squeal under the intake manifold where all the propane injection is located, unit has very touch throttle, alot of power compared to a sister unit, fluttering RPMs during snap, started to get a hard start near the end there.

Thanks for the input guys.

Add tags



0 Kudos

Reply

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