

GHG17 CASCADIA GOING THROUGH INJECTORS



[Josh Slater](#) 9 posts since Jul 4, 2020

GHG17 CASCADIA GOING THROUGH INJECTORS Oct 13, 2020 10:41 PM

Hello all; have a ghg17 Cascadia DD16. Vin: JF0519 Mileage is about 900,000km's.

A little history on the unit: 2 years ago, unit had injector issue, failed #6 and took out the one box. Warranty covered 1 injector and the one box for failure. Customer declined changing remaining 5 injectors. Fast forward to June 2020, unit had a stumble and white fuel smoke out of engine/EGR--See attached video. Unit had 6 reman injectors put in, unit drove for a week and failed another injector, causing it to stick open and over temp one-box. Warranty again covered one injector and the one box. Customer opted to install 5 new factory injectors at the time. Unit was also found to have overhead rocker shaft wear and slop. Rocker shafts were replaced under warranty.

Unit has 6 factory injectors, no remans in June/July of 2020. Unit was good for a few months until recently when unit developed a stumble/hesitation when between 145/150-180 degrees coolant temp. Took a driving log and all parameters seemed in spec. When customer felt hesitation smoke control was in full effect, likely causing what felt like a hesitation. Customer asked for Detroit to review file just in case. Sent log to Detroit for extra review. Detroit's stance was that smoke control was causing the hesitation. I took unit out for a drive after replacing a pinion seal and felt unit bucking/hesitating and surging when around 1050-1300 RPM. Return to shop and once at shop unit was above 180 degree's and would not act up. Let unit cool down. Once unit had cooled to around 150 degrees I did a few throttle snaps and felt slight stumble/bucking when throttling up. Removed EGR delivery pipe and found raw white fuel smoke coming out EGR---See attached video. Exact same symptom as in June/July.

Has anyone run into any issues before with units going through injectors? Customer states he uses no additives and this customer religiously services this unit. As far as trucks go, this truck is very well looked after. Probably the best one I've seen in my 10 years of working on them.

Any thoughts? The video attached is from October of 2020, however, this unit did the exact same thing in June/July of 2020. Just curious if anyone has found any reasons for this symptom other than injectors. Unit has 6 factory new injectors in June/July of this 2020.

Thanks again.

- [IMG_0352.MOV](#) 3.0 MB



[Jon Cecil](#) 852 posts since Nov 25, 2014

GHG17 CASCADIA GOING THROUGH INJECTORS

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 14, 2020 4:18 AM

Could you attach the log file?

Fuel quality would come to mind if the injectors keep failing. Has a sample been taken and sent to a lab?

Are there any relevant fault codes?



[James McFadden](#) 156 posts since Dec 9, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 14, 2020 12:37 PM

+1 on fuel quality , what I was thinking also jon. also are trim codes programmed ? I would also recommend using eco clean as a routine thing to see if that helps



[Josh Slater](#) 9 posts since Jul 4, 2020

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 14, 2020 2:31 PM

Trim codes are set Sir



[Scott Trippel](#) 3,958 posts since Dec 13, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 14, 2020 2:03 PM

I could have wrote those symptoms...had exact same symptoms on a DD16.

We found that at 145F unit had a real bat stumble at 1100 rpm to 1200rpm. We replaced injectors and the symptom cleared. Unit worked for 2 months then it came back. We put or test MCM on it they took it for 3 weeks and said it was 90% cured so we replaced the MCM.

Those DD16's are common to have that stumble and we were told on several occasions the reason is the size and weight of the pistons rods crank, they have the software set up to overcome the mass but they also need to control smoke emissions so the hesitation will not 100% clear.



[Steve Reppard](#) 101 posts since Jun 29, 2020

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 16, 2020 11:07 AM

Scott, I have also noticed if ITV is closed at idle stumble will be more noticeable then if ITV is open just off idle. I'm guessing it has to limit fueling until ITV can open for emissions-just my theory on that.



[Josh Slater](#) 9 posts since Jul 4, 2020

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 14, 2020 2:30 PM

Thanks for the reply's guys. Fuel sample has not been taken, although this truck is fueled from the same station as many others in town and this is the only one with the issues. I assumed fuel quality too, but as this unit is a one off and has filters changed like clock work it was dismissed. Some food for thought though. It's just strange that this unit blows all this smoke and when its blowing smoke like that it wont rev out past 1550 RPM.

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Thanks for chiming in guys and for the test MCM idea. Its worth a shot. Just curious that this unit has been through injectors like this in short order.

Unit has no codes. I will have to dig up the Log I sent to detroit and attach later.



[Robby Dabernig](#) 109 posts since Nov 14, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 15, 2020 1:05 PM

There is probably no way to prove it but, I have seen a handful of DD15's with valves that stick. Especially at that kind of mileage. Maybe occasionally the valves stick, poor combustion and it smokes as a result? Has anyone looked into the EGR system on it? Just wondering because I didn't see anything in the original post. I have seen plugged ports or bad sensors cause erratic running issues that we could not always duplicate in the shop.



[Steve Reppard](#) 101 posts since Jun 29, 2020

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 16, 2020 11:11 AM

We had a dd16 in shop that had corrosion in intake temp sensor and it was throwing off intake temp readings with no codes logged. This issue caused major hesitation that seemed to get better at operating temps but colder temps made it worse.

As far as ghg17 inj failures, we have had good luck for the most part but did have a truck return recently that had gotten a six pack and then 1 week later it returned with aeration of fuel and overfueling that took out 1-box, replaced inj's and aeration went away and has not been back in 5 months.



[Josh Slater](#) 9 posts since Jul 4, 2020

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 16, 2020 3:18 PM

Thanks Steve, this truck is coming back today for the work to be performed. Just an update for everyone, I checked for aerated fuel and found it had air on the return side. Started troubleshooting for aerated fuel. Performed low pressure leak test and test passed. Performed relative compression test and found 4 cylinders below 90%. As troubleshooting states, remove injectors and cups for suspect cylinders. Will be doing that today. Going to borescope while I'm in there. Will update with findings.



[Scott Trippel](#) 3,958 posts since Dec 13, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 16, 2020 3:24 PM

Aerated fuel Eh.

Check out the video, we had a real bear last month and devised a way to check the injectors. The injector was the cause.



[Eric Bloom](#) 80 posts since Nov 10, 2014

GHG17 CASCADIA GOING THROUGH INJECTORS

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 16, 2020 5:43 PM

Scott are you testing with air ?



[Scott Trippel](#) 3,958 posts since Dec 13, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 16, 2020 9:50 PM

Yes that is correct



[Eric Bloom](#) 80 posts since Nov 10, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 16, 2020 5:46 PM

[Scott Trippel](#) can you send me the video to my email ericb@hoovertruckcenters.com i assume you are pressure testing with shop air ?



[Jason Alexander](#) 7 posts since Mar 10, 2020

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 17, 2020 12:52 AM

Can you also send that video to my email? jasona@trailercraft.com



[Josh Slater](#) 9 posts since Jul 4, 2020

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 17, 2020 5:49 PM

Thanks Scott, I remember seeing this when I was just cruising service solutions awhile back. I just finished up the cups and put it all together, took it for a road test and same symptom with heat although its a little less. You can really notice it if you stop/start in first gear multiple times. It gets stuck at about 1050-1100 RPM and stutters and then revs out fine. Customer needs to use the unit but it will be dropped back off next week for injector replacement as was the original assumption for failure. Will check for that injector leak issue as seen in your video and update you all then.



[James McFadden](#) 156 posts since Dec 9, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 19, 2020 12:09 PM

So would that not put fuel in the oil then?



[Scott Trippel](#) 3,958 posts since Dec 13, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 19, 2020 1:37 PM

You initially think it would but it never did put fuel in the oil.

Had a very hard start and the troubleshooting did not find the repair. Lots of hours on it and then outside the box thinking it took a long time to see the injector leak with air on the needle circuit.

When I looked at the internals of the injector it made sense but I need to go back and put it into words here

GHG17 CASCADIA GOING THROUGH INJECTORS



James McFadden 156 posts since Dec 9, 2014

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 19, 2020 3:02 PM

I have also removed an injector and used a rubber tip blow gun to pressurize the fuel inlet " high pressure side where the fuel line screws to" and found fuel / air leaking out the return holes .



Josh Slater 9 posts since Jul 4, 2020

Re: GHG17 CASCADIA GOING THROUGH INJECTORS Oct 30, 2020 2:06 PM

Hey folks, here's an update. Customer came back after about a week and had an update, our temperature here recently dropped to about 5 degree's C and below. Customer stated that after the temperature dropped the truck has been running smooth as a top. Hasn't missed a beat or stumbled. It obviously would seem temperature related but it's possible that the issue has corrected for other reasons unknown. Had CSC re-check into log when truck was acting up and they still are saying to do injectors after checking fuel again. Have not had a chance to get back into the truck and inspect what's going on as the truck has been running fine and the customer has not brought it back. We are supposed to get a warm snap this week so we will see what happens and I will update when I have more results.