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2007-2008.5 WK CRD FAQ: Jeep Grand Cherokee Diesel

Posted: September 3, 2013 in **Green Technology**, **Miscellaneous**
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*Note: This FAQ can be updated by readers (**last update: 5.9.14**) if you email me information (I'll try to verify and post the info in a timely fashion). As of 4/2014 I no longer own the CRD but have moved onto the new WK2 Ecodiesel.*

Purpose

A FAQ to provide readers information about the Jeep Grand Cherokee (USDM) (internal model description is (https://conflictedracer.files.wordpress.com/2013/09/crd.jpg)for the 2005-2010 Jeep Grand Cherokee is WK) with the 3.0 Daimler Benz CRD engine (engine code: OM642). Please note I will add to this post when I have time and have to make fixes / changes to my own vehicle. I also recommend going to JeepForum.com (http://www.jeepforum.com/forum/f67/) to ask questions and / or find more information. I simply created this post to help my own process and help others find information faster. See bottom of page for resources that may also help.

Background on the Diesel Jeep Grand Cherokee

In the US Jeep sold a Grand Cherokee from 2007 to 2008.5 with a diesel engine (the chassis model is known as WK and was produced from 2005 – 2010). The CRD engine was a Daimler Benz 3.0 CRD (Common Rail Diesel) the same as used in various Mercedes Benz sedans, SUVs and trucks including the Chrysler 300 sold outside of the US. Please note this engine is not the same as the upcoming 2014 (September 2013 release) WK2 EcoDiesel which is a VM Motori power plant (Fiat/ GM engine company based in Italy) even though they are both 3.0 turbo diesel powerplants. See this link for more info on the EcoDiesel (http://www.allpar.com/mopar/V6/VM-RA-diesel.html).

The WK weighs 4,900 lbs unladen (4wd) it is extremely heavy for a "mid-size" SUV and it is geared for

off roading and not fuel economy (Wranglers are notorious as well for poor mileage). That is why a diesel in these trucks makes so much sense. What is the real drawback with the WK CRD is the transmission was made for a gas engine and the final drive is too high for it. Running 70 mph you'll see 2,700 RPM which is way too high as 1,800 RPM this motor makes 376 ft lbs of torque. A 6th / 7th gear would have been perfect to give this very low RPMs at highway speeds providing even more superior fuel economy. Currently non tuned CRDs see up to 24-25 mpg highway and those who get an ECU reflash can get up to 26-28 mpg highway (of course all results are driver dependent). The better you are at maintaining your momentum and seeing farther away and slowing / maintaining speed strategically can result in much higher mileage. Another factor is actually breaking the engine in – as diesels with at least 25k miles on them gain efficiency similar to gas engines so your mpg should increase over time if you bought it from brand new.

Also if you plan on having the "dealer" work on it then make sure they have an experienced diesel mechanic work on your vehicle or see if the Mercedes Benz dealer can do the work as well (same engine).

Did you know that in order to "make the engine sound less like a diesel" the CRD has additional injection pulses whose sole purposes is only to make the engine quieter. The WK CRDs were built at the Jefferson North Assembly Plant in Detroit, MI and the engine was built by Mercedes-Benz at the Marienfelde Plant in Berlin, Germany.

OM642 Engine Specs:

- 2.985 liter (182 cu in) – 72 Degree V6 with a bore x stroke of 83 x 92 mm and a compression ratio of 18:1
- Finger Follower Actuated Valves with Hydraulic Adjusters
- Chain driven, 4 valves per cylinder, 2 camshafts per cylinder bank (DOHC)
- Oil jet cooled pistons
- Aluminum crankcase with cast-in iron cylinder liners (the engine is not solid iron and thus much lighter)
- 24,000 psi (1600 bar) fuel pressure
- 3rd Gen Piezo injectors (first use in US)
- Variable vane geometry turbocharger (actuator controlled)
- Electronic intake air throttle
- Electromechanical swirl control motor that vortexs incoming air to increase low end response
- Quick start glow plug system
- 9.5 liter oil capacity (with filter)
- 13.25 liter coolant capacity
- EGR equipped
- 30% greater fuel economy than comparable gas powered (Hemi) WK and 20% less carbon emissions
- 215 BHP @ 4200 RPM
- 376 LB-FT @ 1800 RPM
- Engine Weight: 474 Lbs. (215 Kg)
- Oil Pressure: @ idle: 16 psi / @3200 rpm: 52 psi

Why Diesel?

Diesels have a bad rap in the US b/c of several factors – GM tried to convert a gas v8 into a diesel engine in the 1980's which was an abject failure, and since the worlds transportation industry standardized on diesel as the fuel of choice they had much looser emissions standards for Noxious Emissions (Nox) allowing them to belch out black smoke giving light passenger diesel adoption at major hurdle to overcome. Today's diesels uses various emissions scrubbing equipment similar to gasoline engines in concert with a low sulfur fuel that is now standard in the US (i.e. Diesel #2). On the contrary as gas engines get direct injection, forced induction their costs are going up to make them compete better with diesels. An interesting study by the Southwest Research Institute (http://www.swri.org/3pubs/ttoday/Summer11/PDFs/ParticleEmissions.pdf) found that modern GDI engines have a significant increase in particulate emissions and are much dirtier engines than a modern diesel.

Fact: Diesel has more energy density than gasoline. When comparing the potential energy 1 gallon of diesel fuel has 25% – 30% greater energy density than 1 gallon of gasoline (octane on gasoline has little to do with more power density). This in effect means for every combustion cycle a diesel uses 25% to 30% less fuel than a gasoline engine to make equivalent power. Another big advantage is that diesel engines are compression ignition (fuel is directly injected into the combustion chamber and under pressure it will ignite completely – no use of spark plugs strategically placed, dual spark plugs or 4 stroke method in order to burn unused fuel). Because the fuel ignites under compression it produces significantly more power at much lower RPM than an equivalent gasoline engine. So in order to provide the same amount of power a diesel can use 25-30% less fuel at much lower RPM than an equivalent gasoline engine. Combining these two major advantages the WK can get up to 50% better mpg under load (towing / hauling or lead foot drivers). No reason the world's transportation industry standardized on diesel power plants over a 100 years ago and have found no reason to switch.

Gasoline also may contain additives such as E10 / E15 ethanol blend of which 1 gallon of Ethanol has 25% less energy density than 1 gallon of gasoline meaning you may get up an even further drop in a gallon of E10/E15 pump gas b/c of this. Diesel on the other hand in the winter may have additives to prevent gelling which can reduce its energy density as well.

Why has it not caught on. Well the reasons above and the fact that diesel is not as widely available at most fuel stations. Diesel fuel also smells oil versus gasoline and is much harder to get clean up after (any spill takes a long time to clean and the smell will last a long time). Diesel engines cost more and manufacturers often charge a higher profit margin as well as they often require addition of costly option / luxury packages. It is more expensive to make a diesel engine than its gasoline equivalent but most often not by the difference in MSRP. for instance VW claims the cost of it's current TDI is only $800 more than a 2.0 Turbo gas engine. Gas engines also have the benefit of significant economies of scale and R&D over the past 100 years. However, as gasoline engines get turbos, direct injection, variable valve and cam timing, cylinder shutoff, intake / exhaust butterfly valves, parallel / series hybrid systems, etc. in order to increase its efficiency by adding more cost, complexity, and long term costs such as battery replacement. OEMs see diesel as a premium engine and often charge significant profit and force luxury / upgrade packages as part of the diesel option.

University of Michigan Transportation Research Institute did a 3 year (45k miles) and 5 year (75k miles) comparison to vehicles with both gas and diesel powered options. To read a copy of this report please follow this link (http://www.dieselforum.org/files/dmfile/20130311_CD_UMTRITCOFinalReport_dd2017.pdf). Please note the CRD and Ecodiesel (WK2 Jeep) are not on this report as they were not for sale at that time.

WK CRD Maintenance Info

A brief tidbit on WK maintenance. Please note the owner's manual has 2 different maintenance schedules. **Schedule A** is light duty use with normal driving meaning lots of medium to long trips without hard driving (towing or frequent stops). If you have a lots of stop & go, high or low temps, heavy duty use, off roading see **Schedule B:**

- Day or night temperatures are below 0°C (32°F)
- Stop and go driving
- Excessive engine idling
- Driving in dusty conditions
- Short trips of less than 16.2 km (10 miles)
- More than 50% of your driving is at sustained high speeds during hot weather, above 32°C (90°F)
- Trailer towing
- Taxi, police, or delivery service (commercial service)
- Off-road or desert driving
- Run Biodiesel > 5%

You can get more info from the owner's manual or WKJeeps Maintenance Page (http://www.wkjeeps.com/wk_maintenance.htm).

Changing the Oil:

The recommended intervals for changing the oil on a CRD is (Schedule A 12,000 miles / Schedule B 6,000 miles). For CRDs with the Diesel Particulate Filter (DPF) you will need to use a oil spec noted as 229.51 (same as Chrysler Material Standard MS-11106 and ACEA C3) which is formulated to produce low soot and be processed with EGR and DPF. One oil change is 9.5 liters which is just a slight fraction over 10 quarts and the manual recommends 5w-30 fully synthetic. Oil Filters WIX 57062 / Mopar 05175571AA and MANN HU 821x.

Potential Oils You can use if you have a DPF (229.51 spec):

- Mobil 1 ESP 5w-30 & 5w-40 (Pepboys carries this)
- Castrol SLX Professional OE 5w-30
- Total Quartz Ineo MC3 5w-30 (you can find this on eBay)
- Quaker State European Formula Ultra 5W-30
- Pennzoil European Formula Ultra 5W-30
- Valvoline Synpower MST 5w-30 & 5w-40

- Valvoline Premium Blue 10w-30 and 10w-40
- Redline Euro Series 5w-30 and 5w-40
- Liqui Moly Long Time High Tech 5w-30 (look for 229.51 spec)

If you have the DPF removed and disabled using a tune and a delete pipe you can use MB Spec 229.31 oil (see DPF Delete section below).

Steps:

1. Warm up the CRD with at least 10 minutes idling so the oil is warm. Shut the engine off and let it stand for 15 minutes so the oil is completely drained.
2. You can go underneath and drain it below with a 13 or 15 mm wrench (can't remember off the top of my head). Please note it will spill quite a bit due to the plastic shielding and a crossbar that is directly in the path of the draining oil. What I've found is that I can use some painter's tape to create a funnel and it will drain cleanly. Another method is to install an oil drain valve such as the Futomoto Oil Drain Valve (F-106) (http://www.fumotousa.com/). Once oil is draining remove the oil filter cap and remove the old oil filter (pay attention to the 2 o-rings to see how they fit on the housing). If you have the DPF the oil will be very black regardless of its age (making you think it's been tens of thousands of miles since the last time the oil was changed – don't worry as this is normal).
3. Once oil is drained you can reinstall the drain plug.
4. Go up top and remove the oil fill cap as well.
5. Install the new oil filter and put on the new o-rings (a very small one and a large one should have come with your filter). See how they orientate when you remove the old ones to ensure you install the new ones properly. A tiny screwdriver will help get them off – just be careful to not score the plastic.
6. VERY IMPORTANT: You will want to add half of the new oil to the oil filter housing hole to allow the new oil to coat the bearings on that side of the engine. I do this with the oil filter installed so it is quickly immersed in oil. Most oil change places (even the Jeep dealer may not know this). This is a pain as it takes a while for the oil to drain (over 5 minutes). Once you use 5 liters you can then add the rest through the normal oil fill.
7. Reinstall the oil filter and oil fill caps (keep the oil fill cap at the same orientation as when removed – the words should not be upside down).
8. Start engine and look for any leaks. Let idle for 5 minutes and shut off. Let stand for 15 minutes and then check oil level. Top off if needed.

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Changing the Fuel Filter: Every so many miles (50K schedule A / 25k schedule B) you should replace the fuel filter. It is located underneath the shroud in the v bank of the engine. MANN filter: WK842/23x

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Changing the Air Filter: One of the easiest and least messy jobs. If you need help with this then you are a true novice. Mopar Part #: 5018777AB.

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Serpentine Belt: One of the nice things about the diesel is the timing chain is good for the life of the engine and does not need adjustment. However the serpentine belt needs to be changed every 60k miles. Check out this DIY write up from Chirpz (http://www.chirpz.com/jeeps/belt/belt.html).

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Tire Rotation & Proper Inflation: It is recommended to get the tires rotated every 6k miles. I would recommend getting an alignment at least every 50k miles as pot holes can knock off alignment leading to abnormal tire wear and lower mpg. Also making sure your tires are properly inflated makes a big difference in the life of the tires and your mpg. I keep mine inflated to at least 36 PSI on all corners and when towing or hauling heavy loads (including loading up the family with gear on long trips) I inflate the tires to 40 PSI.

WK CRD Common Issues and Fixes

Weird Electrical Problems: Yes I said weird – like windows not operating properly, seat warmers not getting warm, getting CELs or strange messages like Service 4WD System. This could likely be from the battery especially if original as it causes all sorts when it gets end of life. Replace it quickly and cheaply $100 at local auto parts store. Put on dielectric grease on terminals and scrape the terminal clamps of any corrosion as well.

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Crankshaft Position Sensor: 2007 (maybe some early 2008 models) Model Jeep CRDs may have a faulty crank position sensor which can cause the engine to stall (may also be a bad harness – see paragraph below). If you try restarted the engine it will crank but won't restart. Jeep released a TSB (as well as Mercedes Benz did for the ML320 and Sprinter vans) describing the issue is located in this link (http://www.wkjeeps.com/tsb/tsb_wk_0900407.pdf). The part # you need for replacement is: 05175763AB. I never had this issue but I picked up my 2007 with 60k miles on it so it may have been done. It did not come with service records so just assuming so.

Another issue is a rubbed wire from the loom underneath the batter as the harness will wear through and into the wires causing a grounding error and a no start issue. If it's not the CPS it will baffle the dealer and most owners. See this link to JF to help diagnose this (http://www.jeepforum.com/forum/f67/3-0l-diesel-random-stalling-problem-1242535/).

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Leaking Elephant Hose Replacement (looks like the trunk of an elephant): It is located under the big plastic shroud and connects the throttle box to the turbo (also known as the intake charge pipe or turbo inlet hose even though its plastic tube). The early models came with an red or orange seal (can only see the color when removed) that would get gummed up with oil vapor from the Positive Crankcase Ventilation hose (small hose that runs from the passenger cylinder head bank to the intake hose right before the turbo). The oil would condense and become a liquid again and leak through the faulty seal when the engine was shut down. It would then drip down into the v bank of the engine where the swirl motor resides at the lowest point below the seal leak and oil would seep into the electrical connectors and cause it to fail prematurely (see **swirl motor** for more info on that). A Technical Service Bulletin was released to replace this tube but it was not recalled. The new part number of the black seal is: 53013672AE (called AIR CLEANER TO TURBO HOSE) and can be found at this link at Factory Mopar Parts.com (http://www.factorymoparparts.com/53013672ae.html). You can then decide if you want to

get rid of the PCV hose and vent to a catch can or the atmosphere. I choose the latter as the oil vapor still travels through the intake and intercooler leaving oil deposits and also gums up the Exhaust Gas Recirculation Valve (EGR) which can cause another failure.

(https://conflictedracer.files.wordpress.com/2013/09/crd-elephant-hose.jpg)
Black seal (updated) CRD elephant hose – intake.

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(https://conflictedracer.files.wordpress.com/2013/09/1-watt-4-7-ohm-resistor.jpg)
1 watt 4.7 ohm resistor

Swirl Motor: Failure code is: P2015

Whether your Elephant Hose dripped oil into the Swirl Motor frying the electronics or it actually failed you have nothing to worry about. The swirl motor defaults to wide open regardless of its operation so if it failed in either way it will not affect driveability. In fact other owners who have had it fail like me see no noticeable decrease in low end performance where it was supposed to swirl the air creating a little more power at very low RPM.

The Fix is simply to buy a package (they don't sell them individually) of 1 watt 4.7k ohm resistors online or from a local electronic parts store. Should cost < $2-$3 in total. Remove the shroud and the intake pipe to get access. See Elephant Hose Mod Above for removal directions. On the drivers side bank of the engine under the turbo inlet you'll see a plastic clip with 3 wires running to it. Remove the clip from the swirl motor. Take one resistor and insert each end into the two middle wires. DO NOT PLUG IT INTO THE BROWN WIRE. Tape it up with electrical tape and tape it aside to reduce vibration. You can always also buy a much nicer alternative from a member on Jeep Forum that simply includes a matching plug to plug it in. See this link for pictures on how to put in a resistor to defeat the Swirl Motor failure (https://conflictedracer.wordpress.com/2013/04/24/jeep-grand-cherokee-crd-elephant-hose-and-resistor-mod/) and keep on trucking.


(https://conflictedracer.files.wordpress.com/2013/09/resistor-plug.jpg)
Plug & Play resistor which looks nicer.

Now if you want to actually replace the swirl motor Chirpz on JF has DIY instructions (http://www.chirpz.com/swirl/Swirl%20Project.pdf) and this link in JF for more info (http://www.jeepforum.com/forum/f67/swirl-motor-repair-step-step-07-crd-wk-1235895/).

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Oil Filler Cap: Make sure you check your oil filler cap as mine was leaking when I originally bought it and found that the two little prongs were bent too far. This maybe caused by having the oil filler cap 180 degrees off (i.e. upside down when you look at it installed). However looking at the prongs and the location where the tabs mounts they seem the same so the seal might leak. What is of concern is that the oil filler cap is directly above the alternator where the leaking oil dripped onto mine causing it to prematurely fail. Part #: 05175447AA.

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Warped Brakes: All WKs have this issue but we bought our CRDs mainly to get the towing power of V8 with the fuel economy of a 4 cylinder. Unfortunately this issue also plagued the WJ Grand Cherokees. In order to reduce the weight of the rotor Chrysler supposedly used a metal bonding process to use a lighter metal on the actual rotor itself and a heavier metal on the hub in order to reduce rotational inertia. Well this was a good idea on paper but after having to replace warped rotors with almost every brake change you get tired of it. Also once they warp they cannot be turned to fix the issue as the warping will come back even faster. Instead I upgraded to the Stillen 4 wheel cross drilled rotors and high performance pads. After a year with these brakes and over 10x towing a heavy load including hard stops and 2 emergency stops – fade was non-existent and no more warping. If you are interested in a kit contact Kolak on JeepForums.com (http://jeepspace.jeepforum.com/Kolak) as he is a brake dealer and can sell you a complete kit.

Brake Specs:

- Front — 12.9 x 1.2 (328 x 30) vented disc with 1.89 (48) two-piston pin-slider caliper and ABS. Swept area: 282 sq. in. (1820 sq cm)
- Rear — 12.6 x 0.55 (320 x 14) disc with 1.89 (48) single-piston pin-slider caliper and single-channel ABSB. Swept area: 257 sq. in. (1658 sq cm)

Old brakes – warped rotors.

Closeup of old fronts.

Installed front rotors – please note they look backwards but installed as per instructions. Works great after 30k miles, many towing a trailer. Put caliper back on and ready to go.

Info from Kolak: Stillen released their cross-drilled rotors for the WK/XK back about four years ago and I've been selling many sets. Odd as it may seem, there appears to be some problem with the stock rotors warping on the WK/XK and the Stillens will not only resolve that potential issue but improve overall performance, including stopping power and fade resistance. In fact the brake division leader at Still has a PHD in Metallurgy. Price for the front pair of rotors is $205.00 for the pair and the rear rotors are $200.00 for the pair. The Stillen Metal Matrix pads are an excellent pad compound with low dust, no noise, and excellent cold/hot stopping power. Price is $65.00 for the front set and $58.00 for the rear set. Contact Kolak (http://jeepspace.jeepforum.com/Kolak) for more info and let him know I sent you.

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Clunking when Acceleration from Stop or Slow Speed: This will not throw a DTC but can be because of worn front differential bushings. The best way to check is to take your smart phone and put it underneath the vehicle's front differential and put it on video so it records (face it up). Next step is to get in and put the WK in Drive and accelerate. Make sure you are going straight so as to not run over the phone (I disclaim any liability!). Get back out and watch and see if there's movement / shifting that looks concerning.

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Glow Plugs: These are common maintenance items on diesels (often have to do them every 100k or so) and only cost $20 each. These are controlled by the Glow Plug Module (GPM) which does the following: 1st is the preglow where GPM supplies battery voltage for 2 seconds to quickly heat up the glow plugs; 2nd is readiness glow where the GPM activates the glow plugs with a PWM signal to reduce voltage level; 3rd is the start glow (the most obvious one) when a cranking speed of about 120 rpm has been reached; 4th is the post glow where after a successful engine start the GPM provides heating pulses to

improve cold engine running and warm up quicker; 5th is the intermediate glow where the GPM will prevent the production of smoke and particulare matter under lean fuel conditions such as engine deceleration where combustion chamber temperature can drop due to low injected quantities; and 6th on modern diesel engines it provides DPF heating where glow plugs are heated to a temperature of about 850 degrees C (1562 F) which controls the diesel particulate filter regeneration phase.

If you live in a colder climate you'll have to change them more often than those who live in a warmer climate. It is important to fix them right away (if one goes it often leads to several others going bad) and may make sense to do all at the same time. You may also want to get a set and have in your toolbox for just in case.

(https://conflictedracer.files.wordpress.com/2013/09/glow-plug.jpg)
Beru (OEM) Glow Plug

Testing: To test a glow plug put on an ohmmeter and check resistance. If the resistance is low (3 ohms or less) then they are good but if it goes up to a high number 100+ then it is bad and needs to be replaced.

OBD2 Codes: The following CEL codes you will get if one goes bad: P0671 (plug 1), P0672 (plug 2 and so on), P0673, P0674, P0675, P0676.

Parts: The CRD glow plug is 4.4v. Mopar Part# 68102087AA – Bosch Part # 80047 – Beru part # 750 33010 244 – Mercedes Benz Part # 001 159 50 01 or 001 159 71 01). Please note that the Sprinter Vans allegedly uses a different glow plug (7.7v) than the WK so be careful when ordering. Also the glow plug module might go bad leading to more glow plug failures so you'll want to check on it as well (below). The Glow Plug Module Part # is: 68013182AB

How to Replace Glow Plugs:

(PASS)==FIREWALL==(DRIVER)

3 ———————————— 6

2 ———————————— 5

1 ———————————— 4

========GRILL=========

Instructions (should take 1 hour to do all 6):

1. Start with a hot engine (helps break resistance as you don't want to use a lot of force to remove them). I would also spray some WD 40 or Penetrating Oil such as Kroil or PB Blaster to help loosen it (like a day before as it will penetrate the coils due to the vibration). This will make a big difference when removing the plugs.

2. Remove Engine Shroud and Engine Insulation

3. Remove negative battery terminal and secure it so it won't flop back up and hit the negative terminal (like with a cloth).

4. Remove wire from Glow Plug (use long needle nose pliers and be careful not to break them or the tabs).

5. Use socket to remove glow plug (1/4 ratchet with 3″ extension and 8mm deep well socket). DO NOT EXCEED 20 FT LBS OF TORQUE as it will break the glow plug. If they are still snug then follow the below OEM instructions:

A. Heat up: Run the engine until it is warm or apply current to the intact glow plug through a separate cable for 4-5 minutes – this heats up the glow plug and burns it free.

B. Release: Apply a generous quantity of anti-rust agent or multi-functional oil to the base of the thread and leave to work in for approx. 5 minutes.

C. Unscrew: Then start a new attempt to unscrew the plug and use suitable tools to release the glow plug from the cylinder head. (Do not exceed the maximum release torque. Make sure you stop before you reach the breakage torque, if necessary start a new attempt by applying heat.)

6. Add some Anti Seize to threads for future changes

7. Put new glow plug in hole, using fingers to tighten (this way you know you are not cross threading). Once it is snug use the socket to tighten but do not exceed 20 ft lbs of torque.

8. Add some Dielectic Grease to terminals and reinstall Connector

9. Reinstall Engine Insulation and Shroud

10. Start Engine (code should go away immediately).

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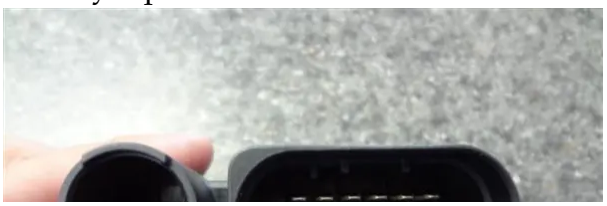
Glow Plug Module: Failure code: P1648. Sometimes the glow plug module will go bad (it controls all 6) and can lead to premature glow plug failure. The glow plug module activates the glow plugs based on the ECM inputs and a performance map. The glow heating is interrupted if no data transfer takes place with the ECM. Depending on coolant temperature, the ECM requests the instrument cluster to display the Wait to Start message. The Mopar Part # is 68013182AB – Mercedes Benz Part # A 642 900 28 00. Part is original Beru (same as OEM glow plugs). You can get these for $180 new. It is really easy to change out as it's takes two plugs and is sticky taped to the surface.



(https://conflictedracer.files.wordpress.com/2013/09/beru-glow-plug-module-2-small.jpg)

(https://conflictedracer.files.wordpress.com/2013/09/beru-glow-plug-module-small.jpg)–

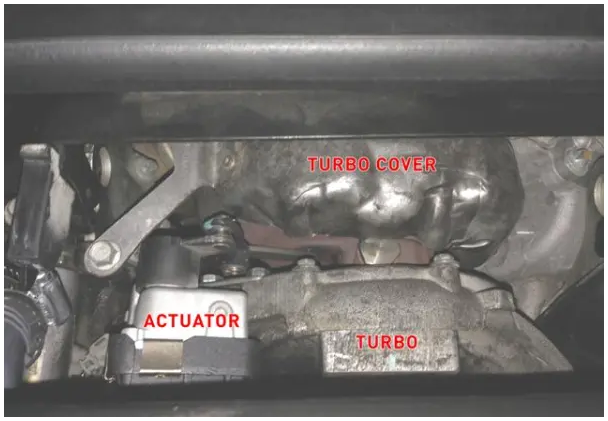
Turbocharger & Electronic Actuator (a.k.a. VGT actuator): The turbocharger on the CRD is a Garrett unit and has a boost pressure servo motor that controls boost pressure by varying the position of the guide vanes (we have a variable vane turbo). The servomotor operates in response to a PWM signal from the ECM. You will get a code and the CRD will go into limp mode – you may also hear a hissing sound.

The code you may get is: P0299 (Boost Pressure Regulation Control Range Not Reached) or P0046 (Boost Pressure Circuit Shorted) or P0234 (Turbocharger Engine Overboost) . You may also have symptoms of not being able to rev over 2,300 RPM or use more than 50% of the throttle at anytime as the actuator is malfunctioning and the CRD will go into limp mode. Don't worry about limp mode as you can still go up to 70 mph as the engine makes enough torque to keep it going – just don't expect to accelerate hard.

The actuator part # is 751154 but they are extremely expensive to buy new (if you can find them) but you can get it rebuilt at this turbo rebuild shop in Manchester, Ohio called **XS Boost Turbochargers** (http://www.xsboostturbochargers.com/products/jeep-cherokee-3-0l-reman-turbocharger-electronic-actuator-2007/) for $200 plus a $100 core. You may need to have the actuator synchronized with the turbo (as the company). See this thread for more info – and thank you forum member 2007CRD for the information (http://www.jeepforum.com/forum/f67/help-3-0-crd-p0299-code-1358214/). You can also get rebuilt turbos as well for approx $500 with $125 core. Part #: 761154.

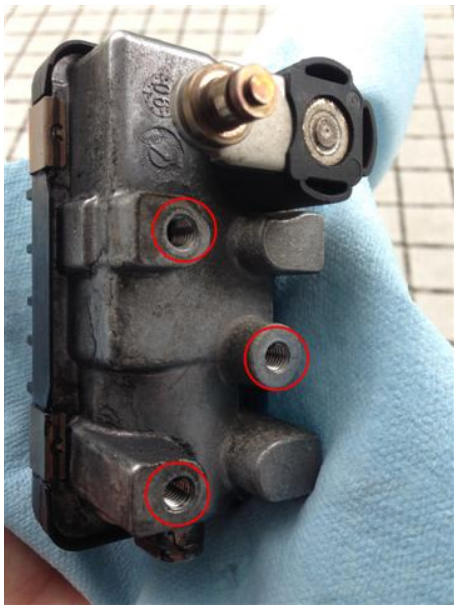
Instructions on how to change (from this link on JF (http://www.jeepforum.com/forum/f67/wk-3-0-crd-my-p0299-saga-how-i-fixed-1618385/)):

Tools needed: A 10 mm flex ratcheting wrench, snap ring pliers, 1/4" ratchet with 10 mm socket and a magnetic retrievers for any dropped bolts or to help catch one if it falls. The turbo is located at the back of the engine (when looking at it from the front of WK) by the firewall. You need patience and hopefully small hands. Credit to pixelcodex (Fernando) on Jeep Forums for the info and all photos.

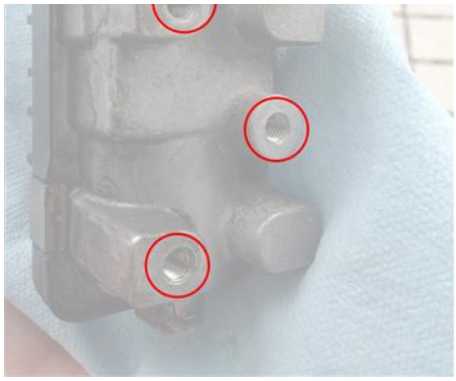


(https://conflictedracer.files.wordpress.com/2013/09/turbo-actuator-1-small.jpg)

Step 1: First thing you need to do remove the turbo cover (3 x 10 mm bolts). This will give you a little bit more room to maneuver there. Technically you only need to remove the 3 10 mm bolts as shown on the back of the actuator, the plug and the snap ring to pull the actuator, but I found that removing 2 additional bolts back gave me a bit more room to loosen and tighten the bolts.



(https://conflictedracer.files.wordpress.com/2013/09/turbo-actuator-2-small.jpg)Step 2: Orientate the servo arm and reinstall. Another small tip is I found that when I wanted to install the replacement actuator is that the lever came almost covering the top hole (faked here in the picture). This made it impossible to install the bolt or tighten. I thought about a solution when it occurred to me that it should reset to the top if I activated it. I plugged it in, turned the ignition on and sure enough, it reset and gave me room to install. Installing is the reverse, with the caveat the getting the bolts to bite can be a little challenging, specially for somebody with big hands like myself. I did not use the pliers to install the snap run, just pushed it in. After that, plugged it in and voila: WK running great again and a smile back on my face.



(https://conflictedracer.files.wordpress.com/2013/09/turbo-actuator-3-small.jpg)–

Engine Block Heater: Rumor is that all US and CDN CRDs came with engine block heaters as standard equipment. I'm not entirely sure but the location to find your plug is on the passenger side firewall next to the air intake box. There is a wire tied to a clip on the side and if you pull that up you'll see a plug (there is a plug cover so you'll have to take that off). Also right underneath the area is a pass through flap to the passenger front wheel well where the plug threads through to connect to the AC power. Simply unwrap (has adjustable tie down) and work into this flap to plug it in. Check the plug for corrosion and clean if necessary. When done and ready to drive simply unplug it, reattach the plug cover, then push it back into the engine compartment and close the flap. Researching the warm up times needed is 2 hours will increase temperature of the coolant / oil to about 40 degrees Fahrenheit / 4.4 degrees Celsius. Any longer warmup is not needed but on cold nights when parked outside (fault of having 3 sports cars and a 3 car garage) I keep it plugged in so it's warm and in the morning I don't have to run out and plug it in.

 (https://conflictedracer.files.wordpress.com/2013/09/block-heater.jpg)

Easy access to plug in and unplug (have stock rims / tires).

Popular Modifications

Elephant Hose Modification: By removing the PCV vent hose from draining oil vapor back into the intake charge tube you remove the oiling of the intercooler, EGR, and other critical components. The drawback is the Jeep will smell and might have some oil vapor smoke if you come to a stop after driving very hard. See this link on DIY on how to vent the hose to the atmosphere with $20 of parts: CRD

Elephant Hose Delete (https://conflictedracer.wordpress.com/2013/04/24/jeep-grand-cherokee-crd-elephant-hose-and-resistor-mod/). You can also do a catch can and vent back into the turbo via this link (provent) (http://www.jeepforum.com/forum/f67/wk-crd-2007-provent-question-got-pics-544549/?highlight=crd+provent+catch) and this link (generic style) (http://www.jeepforum.com/forum/f67/installed-billet-technology-catch-can-crd-1365765/index2.html).

–

ECU Tuning: The biggest bang for the buck with the CRD is getting the ECU reflashed. There are several ECU reflash programs out there but the most popular seems to be Green Diesel Engineering. It not only increases power but your fuel economy as well as it removes injection cycles that were simply not needed for driveability but only to quiet the engine down for its users.

The Eco Tune will give you the following: increase in power to 250hp (up from 215); increase in torque 465 ft lbs at @1800 RPM (up from 376 ft lbs) along with a broader torque curve; increase in fuel economy of 2-4 mpg; reduction in turbo lag; swirl motor is deactivated so no longer a concern; and EGR is eliminated. Tune is approx $700 and you can also add in a DPF delete if you have a DPF delete tube (if you don't get rid of the DPF with the tune you'll either get a clogged filter or a CEL. They also have a hot tune that gives even more power / torque. Check out their website (http://www.greendieselengineering.com).

–

Diesel Particulate Filter (DPF) Delete: Thanks to Chipz from JF, he created a great DIY DPF delete procedure. You can get a delete pipe on JF from tnadanzig who does a great job fabricating the pipes on a premade jig (so they all fit correctly). You WILL NEED a tune in order to use this as if you simply replace the pipe and do not have it done you will get an error and the CRD will go into limp mode. You will also need to get some gaskets from the auto parts store (bring in the pipe and have them fit a gasket to it). The instructions are located in this link (http://www.chirpz.com/swirl/DPF_Delete.pdf) and this link in JF has lots of useful comments. (http://www.jeepforum.com/forum/f67/dpf-delete-step-step-1490831/)

(https://conflictedracer.files.wordpress.com/2013/09/dpf-delete-pipe.jpg)

Here are improvements you should expect to see:

- Little added noise if you have a muffler still installed (idle and at speed).
- No change to smoothness and no increase in vibrations.

- Increase in power as a major bottleneck is removed from the exhaust.
- Reduction in turbo lag makes the CRD seem more peppy.
- 1-2 mpg increase in mileage.
- Cost is cheap for this pipe and $100 extra from GDE for the delete tune.
- You can buy 229.31 oil (and not 229.51) which is substantially cheaper ($7 a quart down from $11 a quart for 229.51)
- Oil also does not get all black and dirty looking as quickly (no longer need low ash oil) and you can go the longer oil intervals. 229.31 is designed to be an engine oil versus 229.51 which is designed for DPF equipped engines 1st, engine oil 2nd.

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Turbo Resonator Delete Pipe: place holder (check JF for member tnadanzig for more info)

–

Engine Tune: I had to finally replace the DPF as I believe the previous owner used the wrong oil with it (requires 229.51 spec) and if you get it done at a fast lube place they don't know anything so don't take them there! I went with the Green Diesel Engineering (http://www.greendieselengineering.com/) Ecotune which bumps up power from 215 to 245 HP and Torque from 376 ft lbs to 440! It also gets rid of turbo lag and further improves economy by 1-2 mpg. I also added the DPF Delete with the delete pipe from CB Engineering (tnadanzig on JF). The process is pretty quick and includes the flash programmer. The pipe removal is a pain (takes a couple hours and old bolts on exhaust rust so spray some penetrating lube on them days in advance). Also have a BFH just in case. Once the DPF was removed and the new tune installed it was better than before. What needs to happen is you drive it for several days and the computer learns and once it is done then the power really shows. After the 2nd day the Jeep was chirping all 4 tires on launch accelerates like a scalded cat. In fact I am getting worse mpg b/c I'm on the throttle so often now to enjoy the shove. I did get a best of 17 mpg towing my enclosed trailer with the tune with a bad cross wind.

–

OBD2 Gauge / Scanner: I am currently in process of adding an OBD 2 Scanner / Gauge Reader called UltraGauge (http://www.ultra-gauge.com/ultragauge/). It costs $75 shipped and is substantially less than other comparable scanners. It has the ability to read up to over 100 gauges. When I installed mine it says it has 59 gauges but the mileage is wildly inaccurate which I have to "calibrate" the fuel economy gauge which is recommended for diesel engines. I'll report back as am currently in this process and have to run the tank down to zero which takes quite a while (sometimes 2 weeks before I need a fill up).

Did the first calibration test of the UltraGauge. It was pinging me saying I used 22 gallons when my gauge wasn't even at halfway. Used 11.205 gallons and entered into device. Well before the configuration it noted 11.2 mpg average and now after 21.1 mpg. It involved a lot of city driving and a brief stint towing the racecar to from storage to the garage.

–

Pro Lite Build on a CRD?: Yep! There is one in progress by tnadanzig so Check out this link (http://www.jeepforum.com/forum/f67/cb-eng-pro-lite-build-2324081/) for build progress and photos. This things going to be badass!

Recalls

Safety Recall N23 / NHTSA 13V-175 Transfer Case Actuator (Summer 2013): Transfer case actuator may have a failure causing the WK to shift into neutral including when parked. If getting this recall it may affect 4WD Low engagement. See JF for more info.

More WK TSBs / Recalls (http://www.wkjeeps.com/wk_tsb.htm)

Fuel Economy

The CRD gets better mpg than either v8 and the v6. It is not a question of if but a question of why (read above Why Diesel). Looking at data on Feuly.com 2007 CRDs log in 23-24 mpg averages whereas the v8 average is 14 mpg for the Hemi and 17 mpg for the 4.7 flex fuel. The gas v6 engine gets 17 mpg.

Reference Information

Fault Codes (sometimes called OBD Code): Since the CRD is OBDII (standard since the mid 90's) here's a breakdown of the Diagnostic Trouble Code (DTC for short). Follow these links for WK Jeep DTCs: WK Jeeps Trouble Codes (OBD2) (http://www.wkjeeps.com/trouble_codes.htm) OR JF Trouble Codes. (http://www.jeepforum.com/forum/f67/diagnostic-trouble-codes-obd-ii-details-734714/) The below is a description of DTC code format:

First digit structure is as follows:

- Pxxxx for powertrain
- Bxxxx for body
- Cxxxx for chassis
- Uxxxx for class 2 network

Second digit structure is:

- P0xxx Government required codes
- P1xxx Manufacturer codes for additional emission system function; not required but reported to the government

Third digit structure is:

- Px1xx measurement of air and fuel
- Px2xx measurement of air and fuel
- Px3xx ignition system
- Px4xx additional emission control
- Px5xx speed and idle regulation
- Px6xx computer and output signals
- Px7xx transmission
- Px8xx transmission
- Px9xx control modules, input and output signals

Fourth and fifth digit:

- Fault (00 to 99)

Types of DTC's: There are two categories of DTC's that apply to OBD II. They are listed below with Type A being the more severe.

Type A

1. Emissions related.
2. Requests illumination of the MIL after one failed driving cycle.
3. Stores a freeze frame DTC after one failed driving cycle.

Type B

1. Emissions related.
2. Sets a Pending Trouble Code after one failed driving cycle.
3. Clears a Pending Trouble Code after one successful driving cycle.
4. Turns on the MIL after two consecutive failed driving cycles.
5. Stores a freeze frame after two consecutive failed driving cycles.

–

Diesel Range Anxiety?: You can get a phone App called Gasbuddy where you can do a map search for diesel stations from your current location. The App also provide name of station and prices as well as you can route it with your maps. Also note that you'll often see cash / credit price differences at large fuel stations off highways.

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Great Sites for More Information:

www.JeepForums.com (http://www.jeepforums.com)

WK Online Owners Manual (http://www.jeep.com/en/owners/manuals/)

WK Jeeps Website (http://www.wkjeeps.com/kmenu.htm)

WK Jeeps CRD Page (http://www.wkjeeps.com/wk_crd.htm)

JeepGarage.com (http://jeepgarage.org/f5/)

WK VIN Coding (http://www.wkjeeps.com/wk_vin.htm)

Special Thanks to JF members (credited above).

*Note: This FAQ can be updated by readers (**last update: 5.9.14**) if you email me information (I'll try to verify and post the info in a timely fashion). As of 4/2014 I no longer own the CRD but have moved onto the new WK2 Ecodiesel.*

Comments


Andre says:
September 16, 2013 at 10:20 am
Thanks…Good info for my CRD!!!

Reply


tom says:
September 20, 2013 at 1:09 pm
This FAQ is awesome. Thanks a lot for posting it.

Reply


Stephan says:
October 2, 2013 at 8:53 am
Are there any other options with the Elephant tube? I have read other attempts introducing a Provent filter? Do you have any thoughts on that option?

Reply


conflictedracer says:
October 2, 2013 at 11:31 am
Hi Stephan,
I've thought of and read about doing the provent catch can but some issues have happened with some owners so I just forwent doing it.

A DIY for the catch can: http://www.jeepforum.com/forum/f67/wk-crd-2007-provent-question-got-pics-544549/

Thread on issues with catch can: http://www.jeepforum.com/forum/f67/installed-billet-technology-catch-can-crd-1365765/index2.html

Hope this helps. Thanks.
Joel

Reply


Ariel says:
October 15, 2013 at 11:07 am
Thank you very much for the FAQ. I bought mine used a few months ago with 200,000 kms (124,274 miles) Really helped me to decide on a GDE tune and a DPF delete. Looking forward for an update.

Reply


conflictedracer says:
October 15, 2013 at 1:37 pm

Thanks and I'll be updating over time (when I get it).

Reply

Ingi says:
October 31, 2013 at 5:14 pm
Excellent info on wk(wh) crd. Thanks.
I am struggling with a whine or whistle from the turbocharger on my 2008 car driven only 54K KM. The sound is kind of "pure" and follows RPM. Most noted when starting from cold but reduced after the engine becomes warm. No fault codes and cannot notice any reduction in performance. Any ideas?

Reply


conflictedracer says:
October 31, 2013 at 5:35 pm
I would take off the intake charge pipe (elephant hose) to get access to the intake inlet on the turbo and see if you can feel some excessive play in the shaft (could be a bad bearing – reason why it's louder until it's warm).

Reply

Ingi says:
October 31, 2013 at 6:03 pm
Thanks, I will check and come back.

Ingi says:
November 3, 2013 at 9:27 am
I removed the elephant hose from the turbo and did not like what I found. The blades on the compressor wheel are damaged and there is some play also in the shaft. Took a photo of this but do not know if I can upload it here. Suppose the turbocharger is finished and that I have to get a replacement. Are there any other options? Rebuild? Do you know a reliable source for rebuilt units?
In any case, thanks a lot for your help. All the best from Reykjavik, Iceland.
Ingi


conflictedracer says:
November 3, 2013 at 10:01 pm
Ingi,
You can post the picture in the WK forum on jeepforum.com and get more input from members there. It looks like you need a new turbo but they are not too expensive for a rebuilt one. A rebuilt unit is ~ $500 from a place such as this:
http://www.xsboostturbochargers.com/ but you may want to shop around and find something in the UK as it might be closer and cheaper shipping.

A good buddy of mine is from Iceland and he imports the horses over and trains them here – the beer tolt he often wins. I used to help him as a rider and we'd go up / down these steep hills to get their endurance back up.

Good luck.

Ingi says:
November 4, 2013 at 2:47 am

Hi,
thanks again. Here are a couple of photos at the bottom of that thread:
http://www.jeepforum.com/forum/f67/siren-like-noise-1542854/

I am already underway browsing around for a rebuilt unit. Will let you know the final result when it is done. Nice to know that you have a connection to Iceland. I am not into horses myself but a lot of people over here are:)

Ingi says:
November 20, 2013 at 11:47 am
For the record, I ended up replacing the turbo with an original Garrett unit at a huge cost ($3100 with everything included, instalment, oil change, etc.). This was installed by a professional workshop and there is some warranty on it. I have the old unit. I am just wondering if I can sell it for something.


conflictedracer says:
November 20, 2013 at 12:45 pm
That's not cheap. You'd think a re-manufactured turbo is < $1k so most of the price must have been labor. Well at least its fixed with a warranty and can enjoy the use of the CRD.

Ingi says:
November 20, 2013 at 2:32 pm
The new original Garrett part was 2100, the rest was for labour, oil etc . About 25% of the whole lot being taxes.

Annom Anon says:
November 1, 2013 at 1:24 pm
thank you for taking the time to write all this up!

Reply


Chirpz says:
November 1, 2013 at 10:00 pm
WOW! Great job on the blog….. I'm putting it in my favorites right now.

Reply

Fedon says:
November 2, 2013 at 10:47 am
Good info. Thanks for converging hours of searching and reading into one site!

If I can add. Window regulator glitches are caused by dirty contacts in the switches. Taking it apart is easy and straight forward. Once the switches are exposed, contact cleaner will remove any dirt build up. I had passenger windows intermittent issues that have gone away after this procedure.

Also word of a warning. If you accidentally hit the key and shut down the engine, throwing it in neutral and restarting works but going back to drive will not re-engage the transmission. You will stay in neutral until stopping and placing it in park. Just a word of caution. IMO that's a huge safety concern.

Reply


conflictedracer says:
November 2, 2013 at 11:18 am

Thanks for the information.

I also had the "bump" the key issue happen once when I was towing back from a race with my son and we were going uphill and I accidentally knocked the key with my knee and it shut off completely – I shifted into neutral, coasted to the side of the road (lot's of traffic) and stopped, put it in park and shut it down completely. Put the key back in and it restarted. IIRC the turn signal, hazards would not turn on when I tried them to let other drivers know I had no power at all.

Reply

Mark says:
October 22, 2014 at 11:28 am
I recently had the "bump" the key issue with my 2008 Jeep Grand Cherokee Diesel heading from Seattle to Vancouver on the I-5. It was frightening. It was night time and raining incredibly hard and I was in the middle of three lanes surrounded by other cars. The car literally shut off and the turn signals and hazards would not work. After a couple seconds of panic and realizing what had happened (and unable to move out of the lane I was in or slow down safely), I turned the key clockwise (while still in drive), which turned the car back on and I was able to drive it again. This is a HUGE safety concern and I am taking the vehicle into the Jeep dealership today to get some answers. It is somewhat comforting to hear that others have had the same issue, but I am incredibly surprised to find there is no recall related to this matter.


conflictedracer says:
October 22, 2014 at 11:55 am
Glad you were ok. There was a TSB for this issue recently and I think the 2007 was part of it.

Darren says:
November 17, 2013 at 10:38 pm
Hi, I have a 2007 Grand Cherokee 3.0 lt turbo diesel.
It stalls on take off when accelerating lightly(intermittently) it will also do it when reversing. if you use heavy acceleration its fine. A diesel specialist has replaced the injector pump but that hasn't made a difference. It shows no error codes and i'm stumped. Any ideas would be greatly appreciated.

cheers
Darren

Reply


conflictedracer says:
November 17, 2013 at 11:55 pm
Hi Darren – No error codes stumps me as to what is the issue. The pump doesn't make sense as it would likely be a problem if you had the opposite symptoms stall under heavy throttle but be fine under idle / light throttle.

Maybe you have an 02 sensor that is going bad giving you readings that could cause stalling at light throttle. I would post in http://www.jeepforum.com/forum/f67/ (it is the WK section which covers the 2007 CRD). There are several service technicians on that site who may have encountered this issue. Hope this helps.

Reply

Darren says:

November 18, 2013 at 12:14 am

Thank you for your help, I'll give it a try.
cheers matey.

Darren says:
November 17, 2013 at 11:29 pm
Hi I have a 2007 Wh Grand Cherokee 3.0 lt Turbo Diesel. It is stalling on take off on light acceleration as well as reverse. It doesn't do it all the time but always in a inconvenient place. I was told it was the injector pump which was replaced on warranty but has not fixed the problem. Any suggestions would be great thanks
Darren

Reply


conflictedracer says:
December 1, 2013 at 9:40 am
I'm late replying to this Darren. I've not had the stalling issue but I think I saw your post on JF. It may be the crank position sensor which was a known issue at the time of production especially on the 2006 / 2007 WKs (including gassers). It is an easy fix relatively and will take care of this problem.

Reply

Darren says:
December 1, 2013 at 2:52 pm
Thanks for your help. I have been hearing and reading about the cam position sensor. wouldn't that display an error code?

Chad Greene says:
December 1, 2013 at 9:49 pm
Darren, I had this problem as well occur at 80,000Km. Turned out to be the EGR valve. Really common on this jeep and sprinter vans with OM642 engine so the mechanic told me.

Reply

Darren says:
December 10, 2013 at 5:04 pm
Thanks for your help guys. im now being referred to a suto electrician. would the sensor and valve give a error code?

Reply


conflictedracer says:
December 10, 2013 at 11:04 pm
How old is your battery? Is it original? That could be causing a whole bunch of issues.

Darren says:
December 12, 2013 at 3:32 pm
The battery has just been replaced st my request as the one that was in it was way under sized.

Greg T (NSW, Australia) says:
December 28, 2013 at 12:07 am
Thanks for the work in putting all this great info in one place. Will be useful for us who have had a

CRD for awhile and newbies just getting one. Have linked to favorites and will come back occasionally to check on new additions.

Reply

Brandon says:
December 29, 2013 at 6:46 pm
Thanks for this page, just got a 2008 crd 2 months ago. I took it for an oil change at the dealership and they did not tighten the oil fill cap. Drove it for a day before i realized oil was pouring out all over the engine. They towed it back to the dealership and told me it was a faulty oil filter! On chistmas day our jeep died on the side of the road. Battery light was on and the engine would not turn over. After going out and replacing the expensive battery it started up fine but the battery light was still on and alternator was not working. After reading your blog and taking a very clear picture of the alternator covered in engine oil the. Dealership is now replacing the alternator. Thanks again,

Jeep otherwise is in excelent condition with just over 100k km. Do you think anything else could have been damaged by the oil spillage?

Reply

conflictedracer says:
December 29, 2013 at 7:14 pm
You should try to get the dealer to compensate you for buying a new battery as their negligence caused the alternator to fail. The next thing I'd do is do the resistor fix and get your EGR cleaned. Also find a dealer who is experienced with the WK CRD (maybe try a Mercedes dealership if necessary). I also installed the Futomoto oil drain valve to significantly cut down on spillage when replacing the oil. Make sure you follow oil change procedures to the letter as it takes much longer to drain the oil and a lot of time to refill it. This is something I wish that was an easier step. But I got 26 mpg on a trip down to Table Rock Lake and 22 mpg on the way back home.

Reply

Brandon says:
December 30, 2013 at 8:38 am
I would like to do the resister mod, however I live in area that requires emission testing and wondering if the mod will affect the test.

conflictedracer says:
December 30, 2013 at 9:17 am
The resistor mod should not have any affect on emissions. OTOH removing the DPF would have the greatest effect.

feodor says:
January 3, 2014 at 9:52 am
Hi, thanks for the very useful information, I also have a crd 2007 European spec, made in Austria. I am afraid that it has been over filed with engine oil, as I have done a trip of 1700 miles, and the level is above the top red mark. How serious is it if it is overfilled?

Many thanks in advance and happy new year

Reply

conflictedracer says:
January 3, 2014 at 10:00 am

You have three options and a little overfill is not a big issue. Hope that it is not too badly overfilled and won't cause oil leaks in the future, try to drain a little oil out (1/2 liter at a time) and check the oil level at the time, and lastly do an entire oil change.

I installed a Fumoto F-106 quick oil change valve that you can open / close with the flip of the switch and it gets rid of the mess that can be caused by the splashing on the undertray.

HNY to you too!

Reply

feodor says:
January 3, 2014 at 10:34 am
Tanks so much for the answer. Will try to drain a bit. To get the most accurate measure, does the engine has to be left the night over or as many suggest, running temp and left for 15 min?

Reply

conflictedracer says:
January 3, 2014 at 11:25 am
You want to change oil when the engine is warm not cold. You are supposed to leave it for 15 mins before draining but I leave it for 30 mins after the engine was fully warm (about 1/2 way on the temp gauge).

Reply

Darren says:
February 4, 2014 at 12:23 am
HI all,
The saga continues with my 07 crd Grand Cherokee.. After the auto electrician couldnt find any issues he replaced the crank position sensor at my request. (and got the caryard to pay) He mentioned there were metal filings on the old one when i picked it up. It was good for a day then back to its old tricks. Can I block off the erg valve to see if that is the issue? any other suggestions you may have would be greatly appreciated.

Cheers
Darren

Reply

conflictedracer says:
February 4, 2014 at 7:35 am
I don't know if you can block off the EGR valve. I had my friend clean the EGR out and I then did the elephant hose modification to have the PCV vent to atmosphere to prevent the oil vapor from entering the intake system causing all sorts of issues (including gumming up the EGR). I guess you don't have an DTC either so it's hard to pinpoint (stumping me now). But you've eliminated several other suspect causes (battery / crank sensor) so I'm stumped. Give JF a try to find out if someone has any experience of this issue as well.

Reply

Chad Greene says:
February 6, 2014 at 5:43 pm
I second the 'Clean the EGR valve' suggestion. I can't say the EGR valve is the problem here with 100% certainty, but your vehicle's symptoms sound the same as mine were and that was the

problem. If you're not getting a code, then you may be able to save it by cleaning it before it gets totally clogged up, overheats and stops working. The diesel tech I spoke with said these fail ALL the time.

Reply

Darren says:
February 15, 2014 at 11:19 pm
Hi Chad. Thanks for your input. Did you have some one clean the EGR for you or did you do it yourself? I have tried to do it myself but I couldn't get it loose to remove it. How much did it cost to have cleaned if you had it done or are there any secrets to loosening them up to remove ?
Cheers
Darren


conflictedracer says:
February 16, 2014 at 9:55 am
I did not do it myself but a friend of mine – I had mine done at 74k miles. I might have him do it again as I don't have a GDE tune (GDE tune eliminates the EGR and Swirl Motor).

Chad Greene says:
February 23, 2014 at 5:16 pm
I did not clean my EGR, I had it replaced. Had I known more at the time, I would have tried cleaning it first. Try to use a rubber mallet and give it some taps around the base, then place some tape over a flat head screw driver (so you don't mar things up too bad) and try to wedge it apart. I've read they are notoriously hard to get off the first time so don't get frustrated, just keep picking away at it.

stuart says:
February 18, 2014 at 8:46 pm
I have a 2006 Wh3.0 based in Perth Australia. I tried the resister fix
to shut down the swirl motor which was still ok. A check engine light
came up and wouldnt go away even after a few days. Reconnected swirl motor
and CEL goes off. Any hints on how to rectify the CEL with the
resistor in

Reply


conflictedracer says:
February 19, 2014 at 7:10 am
I did mine and it immediately worked so I can only guess the following. Did you use the correct resistor (or try a 2nd one as the first one could be bad)? Did you connect it to the two middle pins? Or possible are AUS CRDs wired a little different that you have to do it differently (that I'm not sure)?

Reply

stuart says:
February 19, 2014 at 7:47 am
Thanyou for the fast reply. I might give it another go with a new resister
Best regards
Nev

Reply

Willem Prinsloo says:
February 26, 2014 at 11:42 pm
Please can anyone help with a link to download a copy of the owners manual for a 2006 crd?
I bought mine without a manual and cannot find one anywhere.
Regards

Reply

conflictedracer says:
February 27, 2014 at 8:06 am
http://www.jeep.com/en/owners/manuals/ is where I can find them but they may only be USDM specific.

Reply

Brandon -2008 crd says:
March 1, 2014 at 2:15 pm
Check engine light came on 2 days ago 106k km. Code reader said it was the cps. Bought a replacment sensor but check engine light went out today before i replaced… Dont know if i should replace the sensor or if it was just a glitch (have extreme cold temps past couple of days). I've only had the jeep a few months and dont know if it has already been replaced.

Reply

conflictedracer says:
March 2, 2014 at 9:23 am
Symptoms of a CPS are sometimes intermittent until it finally goes bad. If you have it already I'd replace it just for the knowledge it's been done. I bought mine and it did not come with records but called several dealers in the area and where it came from to find out what has been done at least there. Mine never had the CPS replaced but maybe it was done as I've never had an issue from it.

Reply

Calvin says:
March 26, 2014 at 5:42 am
Thanks for the fantastic write-up. I'm getting P0234 and P0046 codes and am interested in replacing the VGT actuator as you've described in the procedure above. You mention that the actuator might have to be synchronised with the turbo. Do you know how this is done, and who would do it?

Reply

conflictedracer says:
March 26, 2014 at 7:45 am
When mine went it was under the extended warranty and the dealer did an entire new turbo and I just paid the deductible. Contact Xboost or ask this question in the forum link I provided. Chirpz on JF who recently when through this and did an excellent write up for it as well.

Reply

Mike says:
April 26, 2014 at 9:41 pm
his a great write up! Really thorough and informative. I've been using the ESP 5w30 Mobil 1 oil for awhile now (purchased from local MB dealership, 229.51 spec), but recently MB has released a newer oil (229.52 spec, 0w30) which they say is their new replacement for their

CRDs… I'm curious to know what oil you'd recommend, 0w30 vs 5w30 vs 5w40? My vehicle has not been tuned and still has the DPF.


conflictedracer says:
April 27, 2014 at 11:32 pm
I ran 5w-30 all season (we get highs of 100s and lows of -10). IIRC the manual recommends 5w-30 as well. There is a good thread on JF about oil types or check out bobistheoilguy.com


Fred says:
April 30, 2014 at 12:23 am
I have a 08 it getting harder to start when hot longer crank time any ideas

Reply


conflictedracer says:
May 1, 2014 at 8:02 am
I could be the crank position sensor causing this problem (known issue). It also could be the injector pump (less likely). Any codes thrown (that might help)?

Reply


Fred says:
May 1, 2014 at 11:02 am
No code fault i did change the cps sensor it fine when cold but after on hwy for a hour it takes a long crank to get it going had this problem before until it got to the point it would not start a injector was changed also i just changed the power sterring pump for the third time i have 225kms use Liqu Molley oil,fuel conditioner,this thing is a tank to tow with pulled a 30ft travel trailer to the east coast 6000km total using a Husky centre line hitch with no issues but this long cranks drives me nuts dont want to bring it to the stealer!! Anyone got same issue??


conflictedracer says:
May 1, 2014 at 1:29 pm
Not sure what it is then. Try a post in JF for help as someone might know the issue / cause.


mark taylor says:
May 16, 2014 at 7:44 am
Hello, just found your blog, thank you so much, so much good info. I just bought a 2008 3.0 CRD. I like to do all maintenance myself to ensure quality of work and your site is awesome. I just replaced a bad damper/harmonic balancer and could not find any info concerning how to lock the fly wheel. I tightened the bolt to 154 ftlbs + about 90 degress, but it requires +180 degrees, therefore i need to tighten 90 mor degrees, but my homemade tool that holds the damper while tightening, failed. Do you have any info. on locking the flywheel for this application,
thanks Mark

Reply


conflictedracer says:
May 16, 2014 at 9:43 am
I've not had to tear down the engine to that degree so am not familiar with a tool that would work for that. For other engines I've worked on I've been able to lock the flywheel using a stubby wrench and then using a bolt on either end was able to secure the flywheel so I could torque down the bolts. Try JF for more info as someone else may have the info you need. Thanks for the compliments though and sorry I couldn't be better help.

Reply

Norman says:
June 12, 2014 at 10:00 am
I am in Haiti, there is at least 10 Jeep Cherokee 3.0 crd 2008-2010 with the same exact issue. The bearing crankshaft moved on top of each other, and that caused engine block eating up. They all have the same issue down here, and I changed my oil every 2500 miles and I also use original Mopar parts and mobil oil recommended. For more info ncraan@gmail.com

Reply

Johan says:
June 18, 2014 at 2:15 pm
Greetings! Love this blog!! I have '05 Jeep Cherokee 3.0 crd with an issue that have me really stumped. The vehicle wont start by itself at all and no DTC's, once u spray a few wiffs of ' rapid start' it starts up immediately with no misfire. I can rev it up no issues at all, but after I let it stabilize on idle and then press the throttle it stalls. This happen even if the engine is at operating temperature it simply wont start by itseld jus keep cranking. I used 'rapid start; and went for a quick drive. Atlast the engine light came on when i accelerated to about 20mph. P0087 (Fuel pressure low -bank 1) came on but thats it nothing else. Here a list of stuff I already checked. 1.No fuel leaks. 2.New fuel filter. 3.Swopped both fuel rails from a known working vehicle. 4.New glow plugs. 5.New Spill-over return pipes. 6.Did a compression test – All within spec. 7.New PCM & Engine harness (Had acid damage from blown battery) With the scan tool fuel pressure is at 36k psi which is pretty good. There is a few items I guess I can swop and check out (like high pressure pump ,lift pump in the tank), but wondered if anyone might have had a similar issue? No 1 I've spoken to can agree on what the cause can be but the obvious issue is the low fuel pressure. Something that bug me is that I removed the injectors and turn them around to observe the spray pattern and see whether one is dribbling. I cranked the engine over but the odd thing is one fuel was being sprayed?! On my working vehicle i spray immediately upon cranking so I'm really stumped. Sorry for the essay! =) Hope some 1 can assist me cause I'm kinda out of ideas at this stage. Regards !

Reply

conflictedracer says:
June 19, 2014 at 9:04 am
Hi Johan,
I'm stumped too besides replacing the injectors with known working units. Try posting up your issues on JeepForum and see what help you can get as it has some very knowledgeable members that might be of help. Sorry I couldn't help much – I sold mine earlier this year and moved up to the new ecodiesel.
Joel

Reply

Phil says:
July 23, 2014 at 8:04 pm
This blog has been very helpful to me! I am considering buying one.
I noticed you said you sold yours. What was the mileage on it when you sold it? Would you buy it again? How does your new one campare to your old one?

conflictedracer says:
July 24, 2014 at 8:13 am
I had 115k on it when I sold it and would definitely buy it again if I had the choice. I would

have kept the CRD longer if it had better gearing as driving on the highway doing 70 mph it would spin the engine at 2,700 RPM which is really high (the tranny in the CRD is the same as in the SRT8 [a 5 speed auto made for acceleration in a high revving engine] – whereas the Bluetec ML350s had a 7 speed mated to the same engine and it ran much lower RPM at the same speed). Though the CRD with the short gearing also made it very quick to accelerate (it was about as fast as the Hemi).

The EcoDiesel is much nicer inside and with the 8 speed auto it now does 2,000 RPM doing 70 mph giving me up to 30 mpg (so better economy than the CRD without any modifications or tune).

Dan Creimerman says:
December 2, 2014 at 10:09 am
Hi Johan, I think I had the same issue two yers ago, and they said is from the injectors, but the problem is in the low pressure fuel pump in the tank. take out the fuel cap and put the contact on . Listen to the fuel howl. the pump is working for 2 seconds to make presure . After that it stops . You must hear the small noise that the pump make it . If not, you must change the pump.

Reply

jurgens says:
June 24, 2014 at 9:04 am
hi
is it possible to get the diagnostic codes? i have message 'service 4wd system' and need more information.

Reply

conflictedracer says:
June 24, 2014 at 9:23 am
Get an OBDII reader and plug it in. It should give you an trouble code. Fault Info at the bottom of the blog post will give you the trouble codes you can check. If the code comes on only when you put it in 4wd low then it might be related to the N23 recall (see in my blog or do a search for N23 with link to forum that has a lot of info).

Reply

Jerrod says:
August 22, 2014 at 6:28 pm
Hello All,

I currently own 2007 Jeep Grand Cherokee 3L diesel CRD. I ordered through Green Diesel Engineering(http://www.greendieselengineering.com/goPage.do?method=home) the Swirl Motor delete, EGR Delete, and DPF delete for my jeep and tune. 240 horse 486 filb of torque.It come with ecu flash reader. The only thing you haft to get is the delete pipe from CB Engineering (http://cb-engineer.com/products/jeep-wk-crd-mid-pipe). I took my delete pipe to Midas Muffler to install, it cost me 208 dollars for labour, well worth the money!!. I am currently getting 29 to 30 mpg. 9.8L/100km.

Reply

Fredrik Barth-Nilsen says:
September 11, 2014 at 2:40 am
Great update. Thanks!!!

Reply

Thomas says:
September 13, 2014 at 2:55 pm
Hi there, I'm considering the purchase of a 2008 CRD, mainly to attach a snow plow (long driveway) but also for long distance trips… Confused about the automatic transmission. I was under the impression that the WK, 2008 Jeep Grand Cherokee diesel comes with a Daimler transmission 5WAxxx also referred to as NAG1 by Chrysler. Only the 4 wheel drive system is an "original" Jeep product in this driveline. Somewhere in this blog I've seen a post describing the automatic as "made for gas engines higher RPM". Is that so? Can anybody clarify?
Otherwise, great info here!!!
Cheers

Reply


conflictedracer says:
September 14, 2014 at 5:48 pm
The CRD uses the same tranny as the SRT8 which has gearing that is made for a high performance gasoline engine. The final drive and axle ratio are different but it still puts the CRD at high RPM while cruising on the highway (especially trying to go 70-75 mph). It's a drawback but when towing you are in 5th gear and have full torque and I hardly ever had to downshift to make even some of the steeper hills through the Missouri valley. The CRD only comes with an auto.

Reply

Bobby says:
September 22, 2014 at 11:16 am
My Jeep was throwing code P0675… I have since replaced the #5 Glowplug but the code is still present… Does this mean my GPM is fried? Or do I have to reset my computer?

Reply


conflictedracer says:
September 22, 2014 at 11:15 pm
Try unplugging the battery for 30 mins or more (maybe overnight). If it's still on then it could be the GPM and your glow plug could have been good. Do the ohm test though on it and maybe check the others. How many miles?

Reply

Bobby says:
September 23, 2014 at 7:08 am
The Jeep reset after 2 days of driving… but now my low oil pressure light goes on and off… it does it after hard acceleration ie after passing a truck, the light will come on. If I pull over and let the Jeep idle it will come out of it.
It put my Jeep into limp mode last night. I pulled over, shut off and restarted and everything worked fine…

Any thoughts on this?

93,000 miles

Reply

conflictedracer says:


September 23, 2014 at 8:28 am

First off check the oil level after it has sat for at least 15 minutes as you maybe low on oil.

Reply


Bobby says:
September 23, 2014 at 9:49 am

It has a fresh oil change… not down any.


conflictedracer says:
September 23, 2014 at 10:17 am

What oil light is on (does it say low oil or is it the oil dummy light). Thus if the oil didn't all drain and you added the total amount you may have overfilled causing high oil pressure and check engine oil light.


Bobby says:
September 23, 2014 at 10:40 am

I just bought the Jeep last Thursday.. I am going off of buddy's word… It looks ok on the dipstick… But I will take another look after work… maybe loosen up the drain plug, drain a cup… see if it helps.


ralf says:
October 2, 2014 at 6:09 am

Has anybody come across a om642 engine which cranks for 7 secs, all 6 injectors fire once another 7 secs cranking injectors fire again once. engine does not start. fuel rail pressure fine, cam and crank synced, faulty engine ecu???(the reason we think its the ecu is because when hooked up to star diagnosics when we remove the electrical conectors to the injectors the engine ecu does not pick up any of the injector!!! any ideas. Mercedes s320cdi 2007 v6

Reply


conflictedracer says:
October 2, 2014 at 1:53 pm

Not sure what is wrong. Can you test a known good ECU? Try Jeepforum for the WK as someone may know the issue there.

Reply


mark taylor says:
October 4, 2014 at 6:30 am

Hello, I have a 2008 jeep grand cherokee with the 3.0. I am noticing a grinding/whining sound, similiar to what you would hear from a low power steering pump. The noise is more noticeable at idle and increases with more throttle. Is this normal? Any ideas?


conflictedracer says:
October 4, 2014 at 11:03 am

Sounds like a belt (the engine has a timing chain so it should be good for 300-500k miles) maybe your serpentine belt is getting old and frayed causing the whining. Grinding sound is a whole different matter. Does the whining sound get louder when you turn the wheels when stopped?

mark taylor says:

October 4, 2014 at 1:02 pm

No. only when reving motor. I just replaced the serp. belt. Maybe swirl motor?

Darren says:
October 25, 2014 at 8:10 pm

Hi Guys just a note to say i have solved all my stalling problems with my 2007 crd.
After persevering with it for over 12 mths and nearly getting wiped out by a truck waiting for it to select gear again, I have traded it in on a 2013 wrangler unlimited. Early days yet but seems to have been a great move. I dearly loved the WK but kept getting told there was nothing wrong with it.
Good luck and safe driving everyone.
Darren

Reply

arik says:
October 30, 2014 at 11:37 pm

I have a chance to buy a 2007 CRD, but it has 170KMs. In my country those kinds of CRDs are really rare so the chance to find one with a lower mileage is pretty low. As it's the Sprinter's engine, I thought maybe this is not too bad and the Engine may work properly for many more miles. Can someone validate this? When usually those kinds of engine start to really fall apart?
Any help would be highly appreciated

Reply

conflictedracer says:
October 31, 2014 at 7:46 am

I had 115k miles (185k) on mine when I sold it and it had no engine issues nor did it seem tired. I did delete the DPF and had a GDE tune. When it gets that old you'll start having to do some work over time (like replace glow plugs). The engine is stout and well built so it should last 2-3x long if it was properly cared for.

Reply

arik says:
October 31, 2014 at 1:07 pm

Thanks a lot. I saw today the car and decided to not go ahead. I saw an oil leakage, there were alot of noise whenever the Jeep went over a bumper, the check engine was on, the seats were torn…was a great disappointment as it had qd2 which is wxremely rare, yet looked like buying a 2007 crd which was poorly maintained is not a good idea. So i will keep on waiting…looking for a crd over 6 months…if someone could snick a 2009/2010 overland crd with a low milage into here…
Anyway thanks again

Reply

Rick says:
November 5, 2014 at 9:09 pm

Running Biodiesel in a 2007 CRD. I got a delete pipe, and was wondering how to trick the DPF sensor to believe its there so i won't go into limp mode. I noticed a resistor worked for the swirl motor. Any ideas?

Reply

conflictedracer says:
November 6, 2014 at 6:49 am

No easy trick for DPF – you'll need a tune instead. I'd recommend GDE as that is what I did when I deleted the DPF. You get the programmer too so you can put the pipe back in and go back to stock with DPF as well (like when selling it). The GDE Tune bumps up TQ/HP and reduces lag as well (much more responsive throttle).

Reply


Dar Baas says:
November 6, 2014 at 5:10 pm
I recently purchased a 2008 GC CRD (I own two) with 170K that has a hose that routes from under the plastic engine cover near the firewall and extends down on passenger side of the engine compartment. It drips what I think is oil on the driveway and also appears to release vapor or exhaust when running that at times causes diesel exhaust odor in the cabin. Any idea what is happening and how to correct this?

Reply


conflictedracer says:
November 6, 2014 at 8:23 pm
It is the elephant hose mod that vents the crankcase vapors to the atmosphere and stops oil vapor from getting into the intake where it collects and coats the entire intercooler system (pools in the kidney shaped pipe). If it's leaking oil it's been on there a while so I'd buy some new hose and replace it and clean it out. You can go back to stock by buying the hose that connects it from the manifold to the intake just before the turbo (should be a block off plate there that a previous owner installed).

Reply

Ingi says:
November 9, 2014 at 5:37 am
Hi, now it is the HVAC system in the car (WH 2008). I suppose this is not necessarily a Diesel specific problem but I am posting it here anyway in the hope to get more useful comments than I have been able to find elesewhere.
The problem is a mildew (like an old used towel) smell from the HVAC system. There is also humidity/fog coming up from the windshield vents after first starting and settling on the winshield. But it blows away after a short while. I have tried to kill the smell by blowing various A/C refreshener spray products through the system but that only helps partly and temporarily.
I have seen some comments on this or similar problems online but they are not very encouraging. It seems that the most common diagnosis is that the condenser drain tube is blocked or partly blocked and there is mildew forming in the condenser environment, causing the smell. But as far as I can see, there is no way to access the problem location without removing the whole dashboard from the car. The drain hole under the car is also not accessible because it is inside the car frame!
Some people have drilled a hole into the water collector behind the glove box to drain the blocked water from out of there.
This is really frustrating. I would welcome some comments on this or any advice.
Best regards,
Ingi

Reply


conflictedracer says:
November 10, 2014 at 7:32 am
Not sure what I can tell you as I did not have this issue with mine and no longer own it (sold it

when it had 115k on it). Try jeepforum or jeepgarage and ask that question there.

Reply


Steve O'Connell says:
November 26, 2014 at 6:04 am
Great FAQ's and answers!
I have an OM642 and have been getting a low oil pressure light come up on the dash together with the warning chimes. Checking at the ECU the oil pressure is fine, but have changed the oil level/temperature sender in the sump (on main dealer advise) and also the pressure sender which is inside the engine. Still got the issue but is is not occuring as frequently as it did. Any ideas??

Reply


conflictedracer says:
November 26, 2014 at 5:04 pm
Could you have overfilled the engine? It's really easy to do it if you rush the service by not allowing all the oil to drain into the oil pan and then when you actually drain the old oil out. Then if you do a full oil change of 9.5 liters it overfills.

Reply


Steve O'Connell says:
November 27, 2014 at 6:46 am
The oil level is 2 marks below full on the dip stick – I don't know if this is good or bad!


Steve O'Connell says:
December 4, 2014 at 6:31 am
Anyone know where the level should be on the OM642 dip-stick ??

Reply


conflictedracer says:
December 4, 2014 at 6:33 am
It's been a while since I've had my WK but there should be a high mark and a low mark. The difference between the high and low is 1 liter if I recall correctly.

Reply


Arul says:
December 4, 2014 at 10:18 am
Hi, I bought a 2008 Jeep GC CRD. it had DTC P2015. I followed the resistor install. P2015 disappeard but a new DTC P2008 came on. would you please help me on this? Thanks a million.
Arul

Reply


conflictedracer says:
December 9, 2014 at 9:10 am
The P2008 Swirl open circuit may mean your swirl motor again. Check your connections on the resistor to see if that fixes the issue. The resistor should be in the two middle prongs. If it still shows up then I'd suggest asking on this forum (http://www.jeepforum.com/forum/f67/) as a lot of knowledgeable WK CRD owners there.

Reply

Jon says:

December 9, 2014 at 8:54 am
What fantastic information! Thank you for compiling all of this!

Reply

ashley carver says:
February 9, 2015 at 7:36 pm
Thanks for posting all this. I have an issue I would like to ask you about, My engine light came on after a cold start. The three key turn trick did not bring up a code so I took it to the local shop, They said the error code indicated a glow plug operating at 99.8%. Why would that trip an error?

Reply

conflictedracer says:
February 10, 2015 at 6:57 am
I have no idea. It could be a glow plug or the glow plug module. Do you use the engine block heater (if it's cold where you are)?

Reply

ashley carver says:
February 10, 2015 at 7:43 am
No to the block heater. It does not usually get below -10 c here in Nova Scotia. Orkut Jeep has about 240, 000 klms on it so prob not a bad idea to replace the module.

Ingi says:
February 10, 2015 at 4:43 pm
I had a similar issue with my 2008 WK CRD. First an error code indicating glow plug malfunction. Had it replaced but the error came up soon again. Then the glow plug control module was replaced and it went fine after that. I did notice an improvement in the engine performance after the module replacement.
I sold the car a month ago and have been looking for a 2014 WK2, but not found a suitable one yet.

EveryDayMinuteMan says:
February 12, 2015 at 5:43 pm
For the few 07/08 WK CRD owners, this is Gold

Reply

Juan Pablo Rico says:
March 2, 2015 at 3:51 pm
Own a 2010 Grand Cherokee CRD outside US.. Problems began about 6 months ago.. At the begining the engine was hard to start, but only in the morning.. after the first start the car worked fine the rest of the day.. Then about 3 months ago the engine began to shuts off repently but know after its shuts off is absolutely hard to start.. and happens often..

Thanks any help will be appreciated..

Reply

conflictedracer says:
March 3, 2015 at 9:47 am
Try asking this question on jeepforums.com in the WK section. I'm not sure what it can be besides

an fuel pump or possibly injector control module.

Reply

Gerrit says:
March 16, 2015 at 5:52 am
Good day. I have a Jeep Grand Cherokee Overland 3.0 CRD 2007. About 3 weeks ago i drove my jeep and accelerated hard when i got to 2000 RPM (just before boost) The car started jerking, it the carried on doing this ever since. I took my Jeep in to an so called expert who told me that the turbo is busted. I then got him to rebuild my turbo, he cleaned the EGR and replaced the swirl valve with a new one and removed the Cat converters. Once done the car did the same (jerking at 2000 RPM) He then replaced the actuator with a repaired, rebuilt one. Still the car did the same! We then noticed that when we unplug the exhaust gas sensor (located between Turbo and EGR) the car then accelerates normal without the jerking but not with all the power, the turbo does boost a lite bit about 0.2 Bar. I can cruse with no problem at 140 KMH. The mechanic did swop out the sensor with one from another CRD (Not a new one) but it still jerks same symptoms. Today i went to another mechanic the fitted the diagnostic and his comment was that the car is going into a protection mode due to over boosting of the Turbo. Please can someone help me? Regards Gerrit gerrit@rectifier.co.za.

Reply

conflictedracer says:
March 24, 2015 at 6:34 am
Gerrit – please go to jeepforum wk2 section and ask this question. That forum has several mechanics who know this vehicle better than I did. I didn't have this issue so am not aware of what it could be. Good luck!

Reply

Sebastian says:
April 11, 2015 at 8:14 pm
Great Info thank You

Have few questions

regarding p1270 code 3crd

Is it possible that leak will damage swirl motor pernamently?

I rang to Dealer about p1270 code and they booked me for replacing of swirl motor [without check the car] they said it's common issue -Dublin Ireland

I'm booked for Monday but after I have read Ur comment regarding this problem I ll check hose for leak. Is it visible or its just vapor when car stopped ?

Month ago I had P0426 code but gone after reset. And having p1270 and reduced power now.

Last question .. will some kind of steal shield help? I saw online some .

Help help help pls thank You

Reply

conflictedracer says:
April 14, 2015 at 7:46 am

The premature failure was caused by a leaking oil from the intake hose seal at the turbo (the PCV valve allows a lot of oil vapor into the intake system which cools and condenses back to oil and leaks when the Jeep is shut down). The leaking oil from that intake (had an orange seal) would drip down into the v of the engine where the lowest point is the swirl motor electronics and short it out causing premature failure. The resistor fix will eliminate this issue as the swirl motor doesn't do that much in the first place.

Reply

Terry Johns says:
April 27, 2015 at 7:54 am
Great site, thank you so much for all the effort you have made. Our 2008 is coming for its 100,000 KM service and the local dealer wants $1300. This isn't going to happen, any suggestions would be most welcomed.

Terry
Alberta

Reply

conflictedracer says:
September 11, 2015 at 8:59 am
Depends on the service you need and looks like it's $1,300 CDN which also sounds more expensive to us US owners.

Reply

thewrightantagonist says:
March 22, 2016 at 10:16 pm
Terry, If you haven't sold it yet I am out west in Canada as well. I have 6x glow plugs, an elephant hose, and a ball joint for a 2008 Jeep 3.0 CRD. IF you're interested I'd let them go cheap. $550CDN.

Reply

JeepingFinland says:
May 26, 2015 at 4:28 pm
Hi! I have 2008 GC CRD (Austria build) I'm having trouble finding solution to adjust speedometer for bigger tires. All aftermarket adjusters seem to work only with gas-models. Does anybody have or know working tool to do adjustment? What I have learned so far, is that adjustment needs to be done with tool that has access to ABS-module. Is that correct?

Reply

conflictedracer says:
September 11, 2015 at 8:58 am
I never ran bigger tires but recall you need to update some computer. Check the jeep forums.

Reply

James says:
September 9, 2015 at 3:20 am
Hi I have a 2006 300C CRD
It's driving me mad? I am in the car trade and can't get my car sorted.
The problem is most of the time it will start when cold.
But when hot or warm it takes exactly 3 times to restart it.
New battery new glow plugs etc.

when on the third start it starts perfect.
Is it an ecu or sensor problem
I have 3 keys tried them all I have the car 4 months and the problem was the same from day 1 it hasn't got any worse in four months or any better
I don't want to spend money on parts it does not need.
I have plugged it in not showing any cam problems.
Baffled.

Reply

conflictedracer says:
September 11, 2015 at 9:00 am
Try the 300C RD forum as I'm not familiar with this vehicle (only US 3.0 CRD in the Jeeps).

Reply

Koos wiese says:
September 13, 2015 at 5:52 am
Love your site . I have a problem when I came from work nothing was wrong with my 2008 Jeep Cherokee an hour later it wont start , all the lights on board is on but don't want to start at all . I connect a wire direct from battery to starter the motor turn but don't want to start , what could cause it . I also change relay of starter still dead Help please

Reply

conflictedracer says:
September 19, 2015 at 8:14 am
I'm not a mechanic but if you can't get the starter to engage even direct wired its not working or the solenoid.

Reply

William says:
October 2, 2015 at 8:12 pm
Great site great info, we have a 2008 crd and love the thing , I use it to tow my 23′ travel trailer and it loves working and I use it to tow my 24′ sailboat.

One thing I did discover and heard from a quite a few owners is that the fuel tank is made out of steel, dirt collects between the skid plate and the tank, and it rots the tank out, I have a nice pin hole in mine and the dealer wants $1800 for a new tank and then there is a 4 week wait. big disappointment in that aspect and expensive to fix.

Reply

Brian in da U.P. says:
January 7, 2016 at 2:48 pm
Torque spec is listed as "20 ft-lbs" for the glow plugs, but I believe it should actually be 20 Nm breakout torque and 10 Nm tightening (per the Beru "workshop tips" sheet. Attempting 20 ft-lbs tightening torque will twist the body of the glow plug (ask me how I know).

Reply

conflictedracer says:
March 3, 2016 at 6:21 am
Thanks for the info. I don't have an WK anymore but others will find this useful.

Reply

Steve N says:
February 18, 2016 at 5:53 pm
I love this blog. it is a wealth of information, for a shade tree mechanic like me. Its keeping my 2008 Jeep running smoothly and saving me money too.

Reply

Greg says:
February 26, 2016 at 9:11 pm
Has anyone used the ultra gauge for trans mission or transfer case codes.

Reply


conflictedracer says:
March 3, 2016 at 6:22 am
I'm not sure as I sold mine over a year ago. Try Jeep Garage or Jeep Forums as a lot of CRD owners use this reader.

Reply

Fred says:
March 5, 2016 at 12:22 pm
Hi got a crd with 300,000 Km has esp and bas light on it appears to be in limp mode any ideas

Reply

Fred says:
March 5, 2016 at 12:28 pm
I did change wheel bearings last year one wire was cut due to rubbing on rim repaired it but it was giving me service 4 wheel drive when this happened I am thinking Transmission control module but guessing have a stored code po836 /4 wheel drive switch circuit it was running fine happened at startup one morning

Reply

Tommy says:
April 6, 2016 at 12:49 am
I see you allow for some engine oils that are 10w-40; I'd advise against using them. I had, but when I went to 10w-30 (Mercedes spec in all cases) the rig stopped consuming oil (was about 1 qt/ 10k miles) and got better fuel mileage.

Reply


conflictedracer says:
April 29, 2016 at 6:24 am
It depends on your climate – winter you want to run a lower viscosity oil to help with start up at cold temps and if you live in warmer climate you want thicker for better protection.

Reply

Chendra says:
April 18, 2016 at 7:58 pm
My EGR valve is acting up, we cleaned it and it ran great and then stopped again. Does anyone have the part number for this?

Reply


conflictedracer says:
April 29, 2016 at 6:25 am
I do not know the part number. There are online parts diagrams that give part numbers. They may have updated the EGR on Sprinter models as they were sold for years after the WK CRD so I'd research that as well as it may fit and work better.

Reply


Denis Bureau says:
April 28, 2016 at 7:53 pm
Awesome infos , thanks a lot !

Reply


Jay says:
May 20, 2016 at 8:23 am
I need to replace the fuel pressure sensor 68032066AA. The price seems expensive to me for what it is. I notice that the pressure sensors for many mercedes diesels are substantially cheaper. Does anyone know specific vehicles year/make/model that use the same fuel pressure sensor? (that may be priced cheaper)

Reply


conflictedracer says:
May 26, 2016 at 7:25 am
I'd try a benz sprinter dealer / shop to see if they find cross referenced parts with the same year benz ML350 blutec.

Reply


Zak says:
May 26, 2016 at 6:39 am
OBD reads P2101 fault on my 3.0CRD 2007 Grand Cherokee (123 000 miles). Searching the internet references:
P2101 – Electronic Throttle Control Motor Performance
P2101 – Throttle Actuator A Control Motor Circuit Range/Performance.

How do I fix this on the Diesel? Resetting it with my OBDII scanner does not work, the check engine light just lights up again

Reply


conflictedracer says:
May 26, 2016 at 7:24 am
Try asking on jeepgarage.org in their diesel section for the WK. I've no idea about this issue.

Reply