

# DD15 HARD TO START UNLESS PLUGGED IN

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[Dave Dobraski](#) 31 posts since Sep 17, 2015

## **DD15 HARD TO START UNLESS PLUGGED IN** Feb 15, 2021 8:38 PM

We have DD15 eng# 472900r1004352 that the customer had a complaint that if the engine sits two days or more it will not start unless it is plugged in. Went to start the truck and it was cranking slow so tested batteries and three of four tested to replace. Replaced all four and it was better but still below 130 rpm. Replaced the starter and it started but did crank excessively. Checked fuel filters and had metal in them. Replaced fuel filter module and high pressure fuel pump. Started in shop ok. Let sit over night and started ok. Let sit two days and would not start. Went through crank no start trouble shooting and everything looked good. Sent log file to Detroit and was instructed to replace fuel injectors. Replaced injectors, started in shop and let sit three days in 25 degree temp and started ok. Customer took it let it sit over night and had a no start issue again. he plugged it in over night and it started right up. Has anyone run into this before.



[Scott Trippel](#) 4,095 posts since Dec 13, 2014

## **Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 15, 2021 9:49 PM

Is that 25F? for a temp? that would be -3.8C.

Does it make 200 bar rail pressure in that temp?

If so I would check compression



[Dave Dobraski](#) 31 posts since Sep 17, 2015

## **Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 15, 2021 10:02 PM

It is farenhiet. Once it starts even if it from just steady cranking until it fires it is completely smooth running.



[Kyle Siebert](#) 4,151 posts since Nov 14, 2014

## **Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 16, 2021 3:41 AM

Ive had this happen a couple of times. Fill the frame mounted fuel filter to the top with fuel. Then pull 5" Hg on both fuel tanks and start it up. Look for air in the fuel lines. [Air Bubbles In Fuel](#). The return fuel lines are hard to see a leak under atmospheric pressure. So when the fuel tanks are under a vacuum it's easier to detect a leak, sucking in air bubbles.

Sounds like it was a loss of prime that cranking the starter to prime it up, eventually allowed it to get prime. Hence the metal in fuel, starved fuel lubricated pump. A warm engine cranks easier than a cold engine.



[Steve Reppard](#) 168 posts since Jun 29, 2020

DD15 HARD TO START UNLESS PLUGGED IN

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 16, 2021 1:57 PM

\*Were tanks and all lines flushed when pump was replaced?

\*Does unit have w/s filter housing-some do not and need to be added with pump failure

\*Did you have fuel pressure codes due to pump failure? and did you make sure the metal debris was magnetic and actual hpfp failure?

I can say that extended crank is almost always loss of prime with these engines-either l/p or h/p circuits or metal in 2 stage valve/lp relief valve from pump failure. Plugging engine in will help with cranking speed but will not help from loss of prime. I would make sure you have laptop hooked up and are monitoring lppo and rail pressure during crank no start. I have found needle and amp lines at back of head leak air when tested but no fuel and it causes loss of prime over night(s).

As far as cranking speed-if its still low I would run powernet tests- you could have excessive voltage drops that are contributing to this.



[Dave Dobraski](#) 31 posts since Sep 17, 2015

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 16, 2021 3:18 PM

We have added the filter, no pump codes and it was metallic. The engine cranking speed is at 170. After doing the injectors and sitting for three days it started within two revolutions. It started faster than any other DD we have seen. Even before the repair once it was cranked long enough and started it ran completely smooth no roughness like it was sucking air and lost prime.



[Steve Reppard](#) 168 posts since Jun 29, 2020

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 16, 2021 3:47 PM

Dave, DD fuel engines will not usually run rough once they start like older engines where if they had air they would stumble and skip until air is purged- they will not start until proper starting rail pressure is achieved. Normally you can hear injector pinging at amplification if there was excessive amounts of air in fuel system before unit primed and started. So i would still hook up computer and monitor starting parameters during a crank no start if you can reproduce issue. Do you have pictures of debris in fuel filter module?



[Dave Dobraski](#) 31 posts since Sep 17, 2015

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 16, 2021 8:03 PM

Sorry my tech sent them to me and once showed to the customer they were deleted.



[Chris Vanboom](#) 190 posts since Nov 21, 2014

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 17, 2021 5:44 PM

I cross referenced this reman engine serial number to the VIN AW2436. The original engine had a grid heater on the intake - a rare feature to see on a DD15, only available on the very first generation. Was the grid heater transferred during the engine replacement? If the reman engine does not require a grid heater, then maybe

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the software needs to be updated to match an engine configuration without a grid heater. If the grid heater is installed on the new engine, does it work?

See BOM 132 for AW2436 for more info



[Sean Groves](#) 18 posts since Dec 3, 2014

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 20, 2021 10:31 PM

We eliminated most of the grid heaters from the dd back then it was a safety recall the were starting fires



[Tim Basehore](#) 1 posts since Mar 13, 2020

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 18, 2021 1:02 PM

Had A Loss Of Prime Turn Out To Be Hand Prime  
Converted To A Two Filter Fuel Module Problem No More



[Kyle Siebert](#) 4,151 posts since Nov 14, 2014

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 18, 2021 6:03 PM

I take it you found that with a low pressure leak check?



[Steve Reppard](#) 168 posts since Jun 29, 2020

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 18, 2021 6:54 PM

Ok, im confused here. Are you the repairing tech for this issue or just responding to question with what you have found?



[Dave Dobraski](#) 31 posts since Sep 17, 2015

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 19, 2021 5:33 PM

I'm the service manager and have been involved with the tech on this from the beginning. Once the customer called back in that he was still having a problem I wrote in here to see if anyone else has run into this that it seems odd. we are waiting for the customer to bring it back in to go over what has been stated here to check.



[Steve Reppard](#) 168 posts since Jun 29, 2020

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 19, 2021 7:24 PM

I was confused with tim's response. It is worded like this was the issue for this post that you started. We see it a lot where multiple people have been working on issues and keep posting under different names. I wasn't confused with your post Dave :-)



[Scott Trippel](#) 4,095 posts since Dec 13, 2014

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 19, 2021 9:38 PM

## DD15 HARD TO START UNLESS PLUGGED IN

So is Tim's answer above the fix????

- [Actions](#)
- 



[Mark Correct](#)

Had A Loss Of Prime Turn Out To Be Hand Prime  
Converted To A Two Filter Fuel Module Problem No More



[Robert Cadell Jr](#) *2,837 posts since Nov 9, 2014*

**Re: DD15 HARD TO START UNLESS PLUGGED IN** Feb 19, 2021 9:47 PM

I've had a hand primer leak on the gen 2 fuel filter set and bite me in the rear, seen one actually leaking.

If I mis marked I apologize but his comment to me is the fix

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