

2005 5.9L DODGE WITH OCCASIONALLY NO START AND EXTENDED ENGINE CRANK TIME COMPLAINTS - HOT OR COLD

Chassis Mileage - 313498.0

Engine Mileage - Unknown

Our customer had been experiencing start-up and/or long-crank-time issues with his 2005 5.9L Dodge and had been using Ether/Starting fluid to start the engine for a few months. Before bringing it to us, he took the truck to another Repair Facility for diagnostics and repair. This shop replaced the In Tank Fuel Pump and installed an M&D Rebuilt High Pressure Fuel Pump. After the repairs the truck still had the same starting problems was sent to M&D for diagnostics and possible warranty consideration on the High Pressure Pump.

After our initial walk around inspection and checking on the basics, we discovered that the engine had low fuel pump supply flow and decided to change the fuel filter. Replacing the fuel filter corrected the fuel pump supply flow and the engine cranking time was reduced. We decided not to do a no start cranking injector return flow test due to the reduced engine cranking time and we thought the engine would attempt to start during the test.

Here are the Fuel System test results.

High Pressure Pump Return Flow: 700 Mls

High Pressure Pump Output Flow: 115 Mls

Fuel Pressure Override Test - Injector Return Flow: 135 Mls

All the Data from the Fuel System Test was within compliance with the OEM specifications. However, from past experience we knew that installing a set of M&D Remanufactured Injectors will lower the injector

return flow to less than 40 mls. Also, by reducing the return flow 95 mls this will reduce the engine cranking time to normal expectations.

I called the customer and, since we didn't know the mileage or the history of the used engine, we suggested replacing all of the injectors and injector connectors/links to correct the extended engine cranking time.

The first concern the customer had was that money had already been spent on this repair with unsatisfactory results. I informed the customer that I understood the concern and that we will stand behind our Diagnostics. I told the customer that if replacing the injectors did not correct the long engine crank time we would reinstall his old injectors at no charge and no bill his Repair Invoice. The customer approved the Injector Repairs.

Note: M&D Dodge 5.9L Injector Part Numbers and Year Model

2003-2004.5 Dodge 5.9L Injector Part # REB0986435503 "Early Model"

2004.5 - 2007 Dodge 5.9L Injector Part # REB0986435505 "Late Model"

Upon removing the old injectors we found another problem. This Truck is a 2005 year model and the Engine ECM matches the Truck's original engine serial number. However, the injectors we removed were 2003 – 2004.5 "Early Model" injectors. So the most logical conclusion was the configuration that we are repairing is a 2005 year model truck with a 2003 -2004.5 engine installed. We were dealing with a 2005 "Late Model" Engine ECM controlling an "Early Model" 2003 – 2004.5 fuel system.

From training and experience we knew that in mid-year 2004 Cummins did several engine upgrades to the Cummins 5.9L. One of the upgrades

is a dramatic piston design change. And this piston redesign is one of the many items that influenced our Diagnostics and Repairs on this engine.

Due to different piston designs, if you install “Late Model” 2004.5 - 2007 injectors in an “Early Model” 2003 – 2004.5 engine the result will almost always be that the customer will complain of black smoke and excessive fuel consumption. If you install “Early Model” injectors in a “Late Model” engine the customer will likely experience and complain of low power and excessive fuel consumption. This will depend on the driving habits of the customer. Take this truck as an example. I spoke to the customer about the miss-matched engine and fuel system. He uses this truck for transportation only and had no complaints with power or fuel consumption. If this truck was used to pull or carry heavy loads the customer would have complained about low power and poor fuel economy.

We reviewed the above information with the customer and explained that if we install M&D Part # REB0986435505 “Late Model” injectors, he will not be satisfied with the engine performance. He agreed to have us install M&D Part # REB0986435503 “Early Model” Injectors. After the fuel system repairs the engine cranking time returned to normal and the engine performance was normal – unloaded.

Monty Seltz

M&D Distributors

MDNS 6/28/2016

NOTE:

When purchasing Dodge or Cummins injectors from M&D Distributors please provide the engine serial number. If you don't have the engine serial number, give us the vehicle VIN number and we will find the

engine serial number for you. Using the engine serial number will help prevent purchasing the incorrect injectors or any engine related parts. Also, you should check to see if the Engine and Engine ECM are original.