Duramax Injector Failures-Cause and Prevention

LB7:
Many LB7 owners have had injector issues. These issues tend to be VERY expensive. The design and labor costs dictate a complete set replacement in most cases. Anything less will almost certainly result in short term issues with the remaining units. While some have had absolutely no issues, many have had multiple issues. Most seem to lose theirs on a somewhat predictable and repeatable basis. Example: 60k, 120k, 180k etc. Some see an escalating rate of failure: 60k, 100k, 120k. The sad part is that most do nothing to help prevent the reoccurrence.

Insanity by Definition: "Doing the same thing over and over expecting different results."

Translated: If you do not take a proactive approach you are almost guaranteed the same results.

LLY, LBZ, LMM:
Injector issues with these engines seem to be few and far between and service is definitely much easier. What we have been seeing though is that trucks with 130k or so are starting to come up with P0087 limp mode when towing especially when hot. See my related Tech Tip Duramax LBZ and LMM P0087 low fuel pressure code. Direct to the point, the injectors are getting worn mostly from fuel quality. These engines also need the same additional TLC in order to keep them healthy and happy. I have had some success tuning around this issue but if you end up replacing injectors do a full matched set only. We try to keep a set of these on the shelf at all times.

Three keys to doing all you can for your Duramax fuel system:

1) Clean, water free fuel: Additional filtration is mandatory. Fueling at a high volume stop only assures one thing. That you get the same fuel that countless others getting. Could be dirty, less likely to be stale, could have water etc. My suggestion here is to add my KD Mega filter under the air box tray.

2) Air free fuel: Without a lift pump your injectors are fed a constant diet of air. It's not from sloshing in the tank and you don't need any fancy air separators. It's from reduced pressure and heat. Adding a lift pump pretty much takes care of this. It also keeps the filter full of fuel so that all of the media is used rather than just a small portion. Using all of the media results in a lower flow rate per sq inch of media and enhances filter efficiency. I recommend my Kennedy lift pump or better yet Kennedy Twin pumps

3) Well lubricated fuel: Use a quality fuel additive like FPPF Total Power. Lubricates, cleans, and totally disperses water. Remember a true lubricity additive attracts to metals. All delivery pumps, pipelines, many tanks etc are all metal so additives used by the fuel provider are often "used up" before reaching your tank.
Notice a trend here? It’s all about the fuel….

Now I’m not saying that my 3 keys will prevent failures, but what I am saying is that doing nothing will certainly result in nothing changing for the better. Following my suggestion will give your fuel system the best chance at a long, happy life.

In the event that you do have an injector issue with the LB7 my first recommendation is to STOP DRIVING IT! Piston failure can follow closely if you have one that is hung open. I also recommend full set replacement. It’s too much work and too much risk to try and get away with changing only the bad one(s) and will almost certainly end up biting you in the ass. Furthermore, reusing the supply lines regardless how well you THINK you cleaned them will most certainly impact injector life. The design of these lines and materials used ends up with a large amount of debris and rust buildup between the line nut and line. This CANNOT be effectively cleaned out.