

1998 Dodge Ram - Drag Race Dodge

1,000 HP, 100 PSI Of Boost, And 10-Second Quarter-Miles

By Chad Westfall
Photography by Chad Westfall



Over the past few years, we have seen tremendous growth in the diesel aftermarket. It was only a few short years ago that twin-turbo kits were made available to the public. Twin CP3 pumps and other big horsepower items had not even been thought of. Thanks to this explosion, we are seeing 1,000-horsepower trucks show up at dyno events, make a run, and then drive home. Diesel trucks are a more common sight on dragstrips, and it seems that almost everyone has a programmer.

With all of this new growth, sometimes it is important to look back and see how we got where we are today. One of the early diesel pioneers is Joe Hellmann of Hellmann Performance. We ran into Joe a few months ago, and his truck immediately caught our attention. His Dodge was one of the first 10-second diesel trucks, and also one of the first shortbed conversions that was made specifically for drag racing. Joe was laying the smack down on gasoline [cars](#) and trucks back in 2003, winning the Midnight Madness Truck class drags four consecutive times. Joe was also in the final round of the Clash of the Titans 11.0 True Street in 2003.



Joe spent many hours cutting and welding the bed in order to make it look like a factory option.

Joe started building this project in 2001 by buying a '98 extended-cab shortbed 12-valve Cummins, with the intention of building a diesel drag truck. He started out by cutting the frame off after the cab, and fabricating a four-link rear suspension. By doing this, he accomplished two things. First, he was able to shorten the wheelbase, and second, a four-link rear suspension is more adjustable than a leaf spring design. After Joe was finished cutting and welding, the new wheelbase of his truck was 121 inches, which is about the same length as a regular-cab shortbed. After completing the back half, Joe had to rework the shortbed into a short shortbed. Measuring about 4 1/2 feet long, the Dodge now has a bed that is shorter than most compact truck beds.

Next, the front 3/4-ton suspension was removed, and 1/2-ton upper and lower control arms, springs, spindles, and brakes were installed. The 1/2-ton springs were not designed to carry the extra weight of the Cummins engine and ended up lowering the front end a few inches. Since this truck is driven on the street and strip, Joe went with Rancho adjustable shocks. Joe had to do a little searching to find a matching set of 1/2-ton and 3/4-ton wheels thanks to the

five-hole lug pattern up front. The front tires are 215/75R15 radials and are mounted on a set of 15x7 wheels. The rear tires are mammoth 33x18.5x15 Hoosiers and are mounted on 15x14 wheels.

Once the rolling chassis was done, Joe installed a rollbar for safety, an Optima Red Top battery mounted in the bed, and an 8-gallon fuel cell. The fuel cell may seem small for a road-worthy [vehicle](#), but Joe says his truck gets twenty miles per gallon, which gives him a range of 160 miles.



The custom Dana 60 rear axle, four-link, coilover shocks, and crossmember were all built by Joe.



Plain and simple, these factory '95 wheels do the job. Notice there are only five lugs up front.



The big Hoosiers are actually street legal, yet still provide excellent traction at the dragstrip.

Up front, Joe removed the 12-valve engine and tore it apart. He sent the block to Hans Racing where it was cleaned and machined. The stock crank and rods were retained and Mahle oversized pistons were used. In 2001 there were not a lot of options for engine parts, so Hellmann had to call all over the country to find what he needed. He picked up a set of competition injectors and an injection pump from Dynamite Diesel [Performance](#), and a custom camshaft, pushrods, and springs from Enterprise Engine Performance. With the parts assembled, Joe put everything back together (including the stock, non-ported head) and started building a custom set of twins. First, Joe fabricated an exhaust manifold out of 2-inch tubing to mount the turbochargers. Once that was finished, a set of Holset turbochargers was added, and together, they pressurize the Cummins to more than 100 psi.

With that much boost, Hellmann knew the air was going to be pretty hot. He experimented with air-to-air and air-to-water intercoolers before finally settling with his own custom-built air-to-air intercooler and intake manifold. Joe started playing with nitrous and quickly found that this was a key to big [power](#). In 2003, when he was running against all of the gasoline vehicles, he was racing one of the few diesels that was running nitrous. Although his nitrous system has changed over the years, his current setup is a two-stage kit by Cold Fusion. When everything is being pushed to its max, this combination puts down 1,000 horsepower at 3,500 rpm and 1,750 lb-ft of torque at 3,000 rpm. Holding this much power isn't easy, and in 2001, there was only one choice for Joe: Sun Coast Converters. A custom stall converter, valvebody, and performance clutches were all used, but no billet shafts were installed because none were available back then. Selecting gears was made easy thanks to the B&M shifter mounted on the floorboard.

The interior of the [truck](#) is pretty straightforward. Power windows and locks were retained as well as the carpet, door panels, headliner, dash, and steering wheel. Joe swapped the two front seats with Corbeau racing seats with G-Force four-point racing seatbelts. On the passenger-side floorboard is an Edelbrock data logger and nitrous bottle. A nitrous gauge is mounted on the custom shifter pedestal as well as the nitrous purge and arming switches. On top of the dash there are EGT and Boost gauges by EEP as well as a shift light.

Today, most of this technology is somewhat outdated, but that hasn't stopped Joe from being a solid contender, as his truck runs consistent 10-second passes in the quarter-mile. In 2006, he was the Number-three qualifier in the Pro Street class at the DHRA Nationals in Baytown, Texas, before the finals were rained out.



A rollcage is a welcome safety addition in a truck this fast.



A custom raised shifter pedestal was made to put the shifter within easy reach.



Gauges from Enterprise Engine Performance help Joe keep an eye on things.



Prior to becoming a professional fabricator, Joe was a pipeline welder. As such, he made quick work of fabricating a T-4 exhaust manifold and turbo setup.



An Edelbrock data logger helps Joe refine his combination every time he takes his truck to the track.



A Mitsuba belt-driven fuel pump is used to supply the modified injection pump with the required fuel.



The intake manifold, compound turbochargers, nitrous setup, exhaust manifold, and intercooler all had to be custom made.





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