

Do I Need Larger Fuel Rails?

Our customers often ask if or when they need larger injectors, fuel lines, pumps, BOOST-A-PUMP™, fuel rails, etc. "Fuel Pump Tech", "Fuel Pump Figuring", and "BOOST-A-PUMP™ Theory Explained" on our website answers most of the questions in detail. Recently, fuel rails have created a lot of discussion but Kenne Bell doesn't promote or sell fuel rails on the web for profit so we are not biased one way or the other. However, it has always been our policy to refrain from recommending products that do not improve performance or reliability, especially those that negatively impact our product image. So we spend a lot of time and money testing products that are used in conjunction with our supercharger kits. Then when our customers call, we can offer a recommendation supported by test data vs. "We got this guy that uses our rails and runs 8's". So what? Could he have run 8's with stock rails? Show me the HP, fuel flow, and pressure data. We never recommend larger than stock fuel rails because they are not necessary. Stock rails are adequate to 1200HP+, so 500-1100HP should be O.K. right? We've proved it many times on our '03 Cobra (775RWHP), '05 Mustang (774RWHP), and '07 Shelby GT500 (801RWHP). All sport stock fuel rails, stock fuel supply lines, and a Kenne Bell BOOST-A-PUMP™ with "0" fuel delivery issues. Not what some like to hear but it is what it is.

Here is some proof, not opinions, just good tests. 3 years ago Muscle Mustangs & Fast Fords Magazine tested a KB supercharged '03 Cobra on an engine dyno, It made 962 engine HP using stock fuel rails, larger rails did nothing for HP or fuel flow. Another magazine test 2 months ago netted a whopping 1044HP on a KB 2.8H supercharged '07 Shelby GT500 motor using stock fuel rails. Testing was performed by Richard Holdener, Tech Editor from MM&FF Magazine. Last month, while comparing rear wheel to engine HP on an engine dyno for a new tech feature on our website, a 100% stock Shelby GT500 engine and a Kenne Bell 2.8H recorded 771HP (3 1/4" pulley), 809HP (3" pulley), and 919HP (2 1/2" pulley) - All using stock fuel rails. There are hundreds of these cars out there making these big HP numbers including the Kenne Bell supercharged 725HP Shelby SuperSnakes.

RWHP was 658 (3 1/4"), 692 (3"), and 801 (2 1/2") as advertised in our HP tables and graphs. None of the cylinders "leaned out" and burned a piston, even at 1180HP! Now what does that tell you? Still think you need to spend your hard earned money on those big billet fuel rails?

Here's another old Kenne Bell test you might want to take the time to try. Check the pressure at the front and rear of the fuel rails, or at the pumps vs. fuel rails, to read fuel pressure loss. You'll be surprised. Our tests, and we DO test, clearly indicates the stock rails are more than adequate.

Here's another old Kenne Bell test you might want to take the time to try. Check the pressure at the front and rear of the fuel rails, or at the pumps vs. fuel rails, to read fuel line pressure loss. You'll be surprised. The sign on our dyno reads "One of the real dangers in running a test is your bound to get data." - Retired Ford Engineer

All too often, we believe opinions, theories, advertising, and web vendors with agendas that are not supported by credible test data - or ANY test data.

These products don't hurt performance, they just DON'T HELP. To an engineering oriented company, like Kenne Bell, that is a total waste. To someone who likes the appearance of big rails there is aesthetic value. Our goal at Kenne Bell is to publish credible tests and tech info that will help our customers make more intelligent decisions towards increasing performance. If we believed those parts are necessary, we would include them with our Mammoth kits. Again our '05-'08 GT, '03-'04 Cobra, and '07 Shelby GT500 make 774, 775, and 801RWHP respectively - ALL with stock rails, BOOST-A-PUMP™ and dual pumps. Note: at 700HP it's a good idea to replace the '03-'04 Cobra feed line as it's smaller than the '05+ cars, rails are OK.

Check out the "Shelby GT500 Tech Tips" at www.KenneBell.net. So no, you don't need big fuel line, rails, and 3 pumps - even at 900-1000HP. But again, it's your decision. S.T. Motorsports street drive '06 GT 3V makes 945HP, turns 9.5/142, and runs stock fuel rails & lines with a Dual Competition BOOST-A-PUMP™.