

TECH TIPS

FORD TRUCKS & SUV'S

"If you don't supercharge it, you may as well save your money"

Ford 5.4 2V, 5.4 4V, 4.6 2V, Expeditions, F150, F250, Navigators

The Ford 5.4, 4.6 engine family are efficient, smooth and reliable. Two years running they were voted "Top 10 Engines in the World." Their only shortcoming is they were a little short on power for many of us - and the trans shifting is a little sloppy.

The '99 up Ford 4.6 and 5.4's engines with their revised heads, intake and cams make more power and performed considerably better than the early '97-'98 engines. The 5.4 4V Navigator engine was unchanged from '99-'03. The '99 up engines also respond better to supercharging.

As with the V10's, we never saw a set of headers that didn't hurt the low end and mid range even if they make a few HP at 5000. Also, no HP in the cat back, "cool air" or "hot air" kits, throttle body spacers, mass air meter, throttle body, turbulators or big exhaust tips (see "Advertised vs. Real HP Tests" for more information). Ford engineers found all the HP at the factory. That makes supercharging the only sensible choice. "Supercharge it or save your money." There is, however, some potential in the calibration. Since most of the 4.6 and 5.4 engines are designed for 87 octane and mushy shifts, the Kenne Bell SWITCH CHIP® makes up to 20HP with 92 octane while firming up the shifts at WOT. A straight through muffler and 3" exhaust pipe does sound nice. All these vehicles benefit from lower gears, but be sure someone can re-calibrate the speedometer.

Kenne Bell kits feature enhanced knock (detonation) protection. The stock ignition works great up to 8 psi so an aftermarket ignition is a total waste of money on a non supercharged engine and unnecessary unless running boost past 8 psi.

Ford 6.8 V10 Excursion / F350

The Kenne Bell supercharged V10 Excursion is one of our favorite company tow and daily driven vehicles. The stock Ford 6.8 V10 is a great engine. It's just a little underpowered for those big Excursions and F350's. We use the Kenne Bell lowered Excursion 2WD to tow our project vehicles, race car trailers, boats, off road vehicles etc. up hills and mountain throughout the U.S. It's big, roomy, powerful and intimidating.

Contrary to what the ads say, there is no HP in the exhaust, inlet or headers for the Ford V10. We never saw a set of headers that didn't hurt low end torque. Customers have come by our shop with every brand header made. We've seen some real B.S. ads claiming up to 60HP for "headers, exhaust and cool air kit." If you believe these ads, you may as well believe in the Tooth Fairy. Again, bring the parts to Kenne Bell with a magazine writer and let's test them one by one. And forget those cheapie Mickey Mouse exposed underhood filters, throttle body spacers, turbulators, oversize mass air meter, throttle body and ignition. We never saw HP gains in any of these products. Ford engineers just didn't leave any HP in the inlet or exhaust systems. There is 20Hp in the Kenne Bell SWITCH CHIP®. After that, get a supercharger or save your money. And never count on our supercharger to get the torque back the headers lose. With the Kenne Bell supercharger, the V10 easily out pulls the Diesels. Our Excursion out powers the Diesels on the hills and out accelerates them from a stoplight, with or without trailers.

Granted, the Diesels offer better fuel economy, but look at the high initial cost. Then there's the noise and smell. And a Diesel will never replace the exhaust sound of a Ford V10 with a straight through muffler. Finally, installing a "chip" in a Diesel does increase power, but look for a corresponding loss in fuel economy. You just can't make more power without more fuel. The extra power from a chip also creates transmission reliability issues - no question about that. V10/F350 owners who install larger 32"-37" tires experience a loss in torque - as they should. Every 1" of tire size is approx. .1 gear ratio. We like the low 4.30 gears and even the 4.88's. 4.30's in a 2WD will require a 2 piece driveshaft. Big tires require a modified SWITCH CHIP®.

The E4OD is a great trans, but is graced with soft, sloppy shifts. The Kenne Bell SWITCH CHIP® improves shift firmness and increases power 20HP. Our supercharged 2WD is equipped with a DJM lowering kit front and rear, Stull billet grill, Kenne Bell boost and fuel pressure gauge, SWITCH CHIP® (included in supercharger kit), Colorado Customs Yuma wheels, Goodyear tires, Denso plugs and a 3" exhaust for sound only. For raised Fords, we recommend Advantage Performance Center (909) 684-8483. Gas mileage is the same as a stock V10 - not all that good - unless, of course in boost. Again, you can't make more HP without more fuel, whether it be a gas engine or Diesel.