



## **DYNOJET THE TRUTH IN POWER**

Thank you for considering Dynojet Research Inc. performance chassis dynamometers.

As you probably already know, Dynojet is the leader in the chassis dynamometer market. We are the “**Industry Standard**” and here’s why; we are the most reliable, consistent and accurate performance chassis dynamometer available on the market. The Dynojet Dynamometer is the most widely recognized chassis dynamometer with more than 4,000 installations in over 57 countries. These installations include OEM manufacturers, importers, exhaust manufacturers, tuners, race teams, dealers, service shops, and motorcycle automotive and ATV magazines. Dynojet has long term partnerships with industry leading companies worldwide.

Why waste time and money worrying about continually calibrating your dyno? Consistency, simplicity, repeatability, dependability, respect: these are words that define Dynojet.

Below is a listing of just a few of the reputable shops, schools and manufacturing companies that rely on and depend on Dynojet day in and day out.

### **Manufacturing/Schools:**

Ford, Nissan, Diablo Sport, HKS, Kenne Bell, Whipple, Super Chips Tuning, Saleen, Roush, BBK, Steeda, Crane Cams, K&N, Injen, MSD, Edelbrock, Borla, Magnaflow, Gibson Exhaust, Edge Products, Nitrous Express, Wyotech, UTI

### **Shops/Tuning:**

AMS, Lingenfelter Performance Engineering, Hefner’s Performance, Renntech, Fast Parts Network, Vmp Tuning, Livernois Motorsports, Intense Motorsports, Titan Motorsports, Dale Earnhardt Jr., Michael Waltrip Racing, Red Bull Racing, Robert Yates Racing, Alternative Engineering, Troyer Enterprises, JDM, PowerSurge Performance, XS Engineering, C&L, Johnny Lightning, King Motorsports

## **The TRUTH hurts sometimes. It just never hurts us...**

At Dynojet, we do not need to talk down the competition. We receive many calls from non-Dynojet dyno owners looking for help or expressing frustration. We encourage prospective dyno buyers to call and ask other dyno owners and do a little research to make an educated purchase. But for some, seeing is believing.

Here are a few links to videos found online. Search on Youtube.com, Streetfire.net or Google, and you can find many videos of vehicles making dyno passes. One thing to remember while you are browsing through the videos, is that you will never see people standing on or trying to weight down a vehicle in order to gain traction on a Dynojet. With competitor dynos you will see this frequently. Twin roller style dynos were designed for smogging vehicles at low MPH. Try to dyno any vehicle with more than 500+ HP on a non-Dynojet dyno and this is what you will see:

### **Competitor Dyno Runs:**

<http://youtube.com/watch?v=wH0acceijGk>  
<http://youtube.com/watch?v=x3-qEpYOx3Y>  
<http://youtube.com/watch?v=0yMd2n66uiQ>

### **Dynojet Dyno Runs:**

The link below shows AMS breaking over 1000+ AWHP on one of our AWD dynos, the 424x, notice there are NO straps trying to force the car down and NO persons sitting on a trunk in order to try and get traction.

### **AMS EVOVIII 1000+ AWHP RUN:**

<http://youtube.com/watch?v=4yySmK2Wi50>

The video below was taken at last year's PRI show in Orlando, Florida. It shows a tuned Twin Turbo Ford GT Supercar on the Dynojet 224xLC during a slightly rainy day. Again, ZERO traction issues.

### **Ford GT Super Car 1100+RWHP RUN:**

[http://www.dynojet.com/automotive\\_dyno/prishow\\_2.htm](http://www.dynojet.com/automotive_dyno/prishow_2.htm)

They say a picture is worth a thousand words, but a video is worth much more. A dyno is an expensive purchase. Even if you do not work on cars that make 500+WHP right now, why turn away business when you don't have to with any of the Dynojet dynamometers available.

Dynojet Automotive dyno Models: **224x, 224xLC, 424, 424xLC2**

**DYNOJET**  
**VS.**  
**100% LOAD DEPENDANT DYNO**

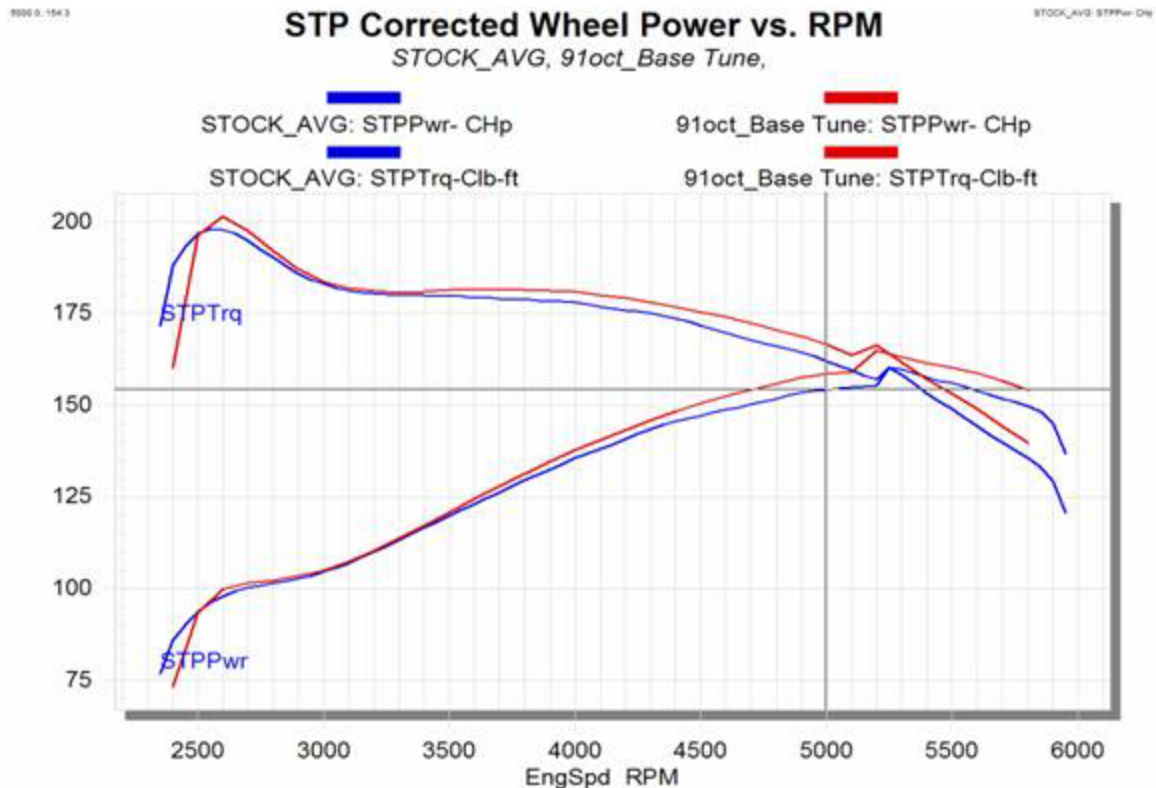
Here is a write up given to us by a 100% Load Dependent dyno owner (we've chosen not to release the competitor dyno name but since most other dynos are 100% load dependant, this will give you a better understanding of the truth from a nonbiased and reputable source).

This customer is one of the most reputable Tuning Companies in the world (Super Chips Tuning a.k.a. SCT) This documentation shows how a dyno that relies 100% on eddy current technology will mask changes made to a vehicle. Dynojet Inertia technology will show results, even if the slightest or most minute changes are made.

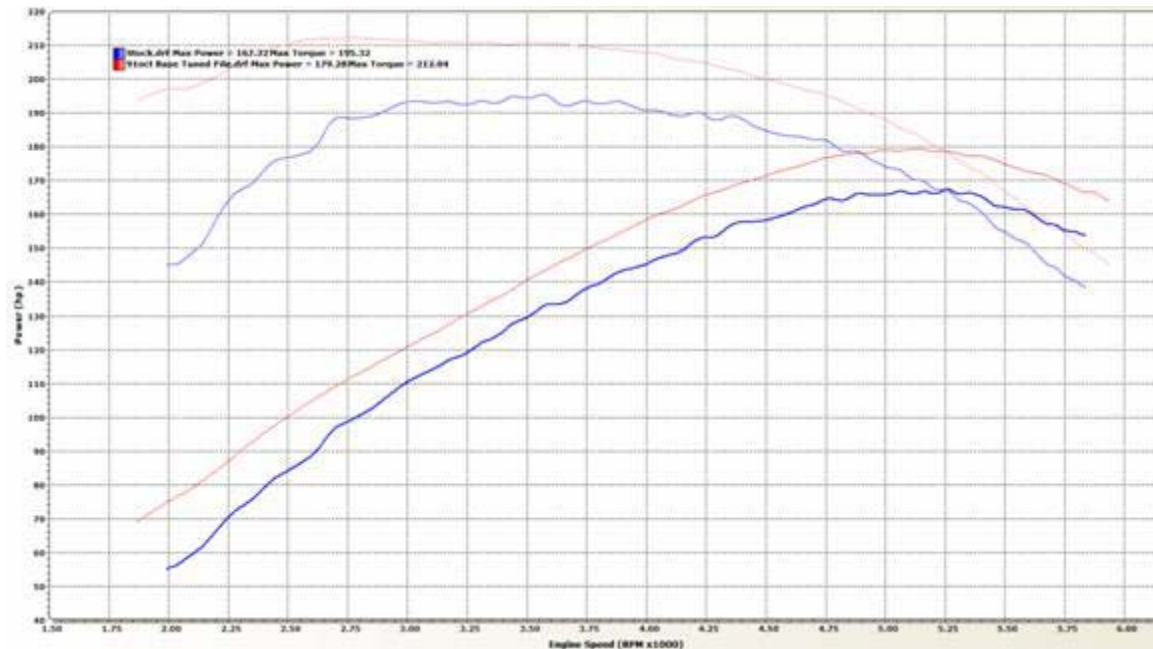
Also, keep in mind that with a Dynojet inertia/load dyno like the 224xLC or 424xLC<sup>2</sup> you get the best of both worlds. You get an accurate, repeatable, consistent, sensitive dyno with the capabilities of being able to do anything a "LOAD" dyno can do, such as hold a steady RPM, steady Speed or Percentage of Load.

Please flip to next page...

The first test conducted was done using a 06 Mustang V6 auto on the 100% load dependent dyno 2WD dyno. The test used was Pro Inertia. The vehicle was run multiple times stock and the average is displayed. Engine coolant was 190 degrees for every run. Engine oil temp was within a couple degrees for every run. The vehicle was then run with a tuned file. The difference is shown in the graph. The stock peak horsepower was 160.3. The tuned peak horsepower was 164.5 for a difference of 4.2 hp.



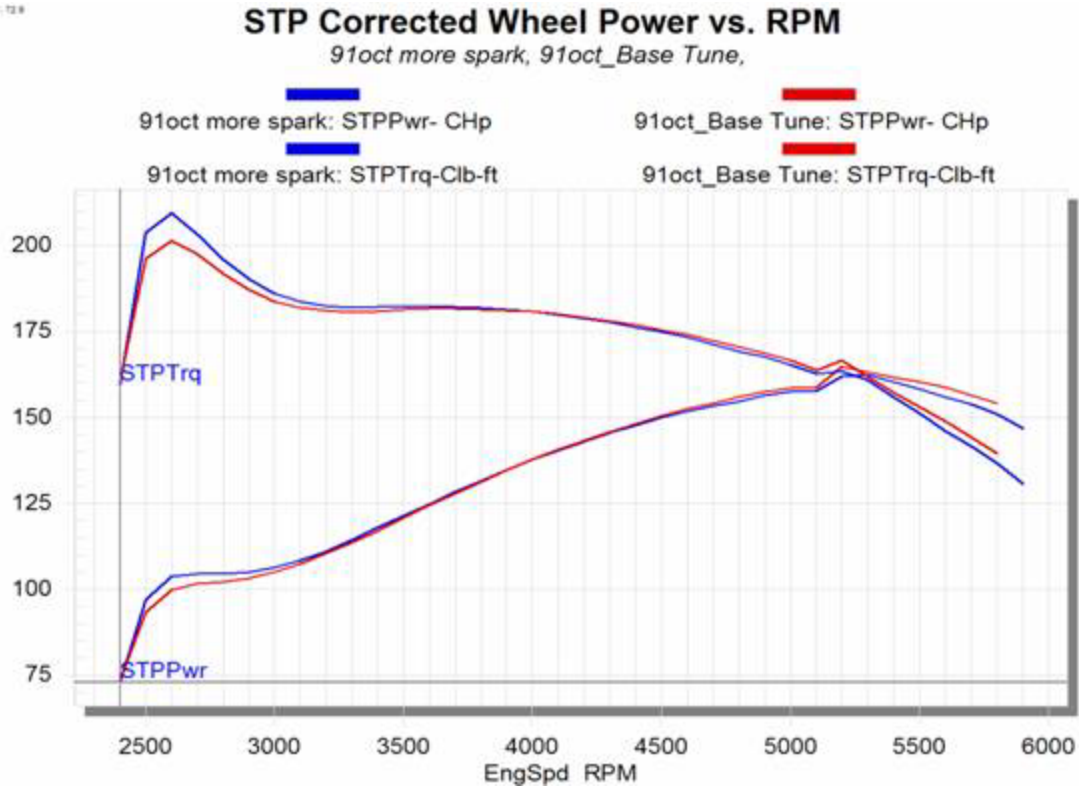
The vehicle was then driven to a Dynojet dyno. Again, we performed the test when the coolant temp was at 190 degrees. We ran the vehicle stock and the peak horsepower was 167.32. We then ran the vehicle tuned and the peak horsepower was 179.28 with a difference of 11.96 hp.



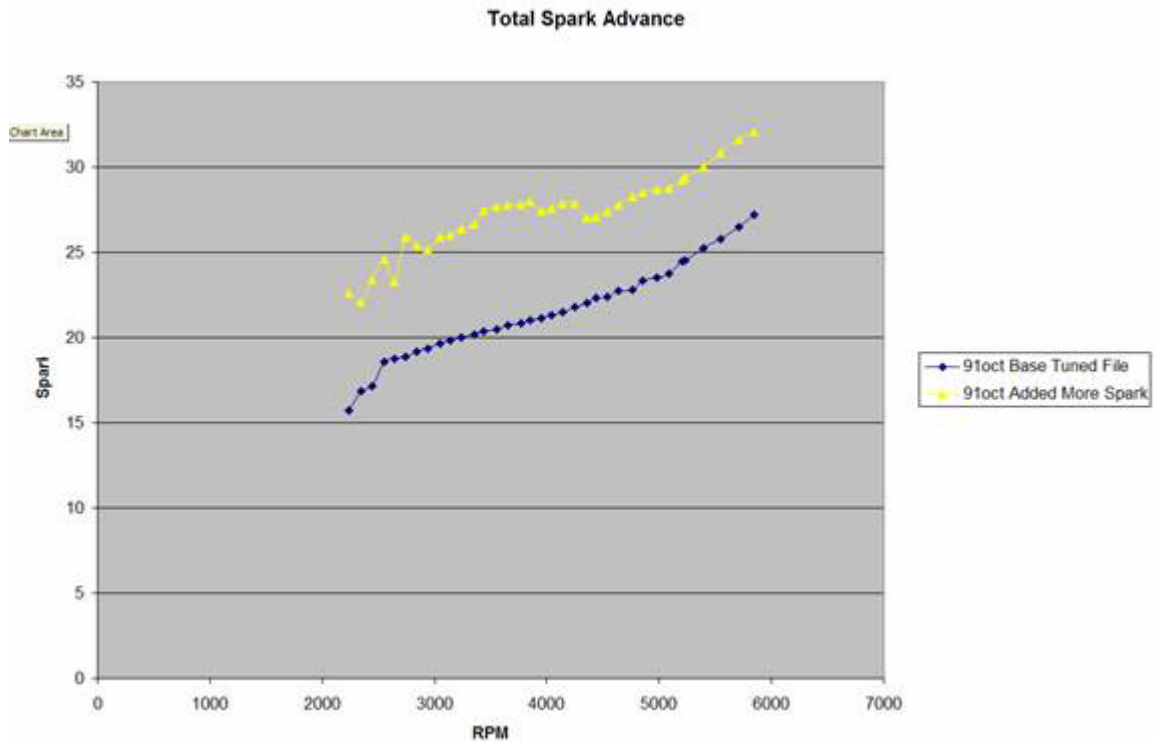
Stock.drf Max Power = 167.32 Max Torque = 195.32  
 first try + 2.drf Max Power = 175.23 Max Torque = 208.80

Stock.drf: 90.38 °F, 30.26 in-Hg, Humidity: 44%, STD: 1.02  
 first try + 2.drf: 91.22 °F, 30.27 in-Hg, Humidity: 36%, STD: 1.02

During our tuning process, we experimented with different parameters in the vehicle's pcm. Our main focus was on spark advance. Usually, a one or two degree timing increase will result in a positive gain on the dyno graph. This was not the case. We added from one to fifteen degrees of timing with little or no change in horsepower. Below is the graph with approximately five to seven degrees difference between the two files.

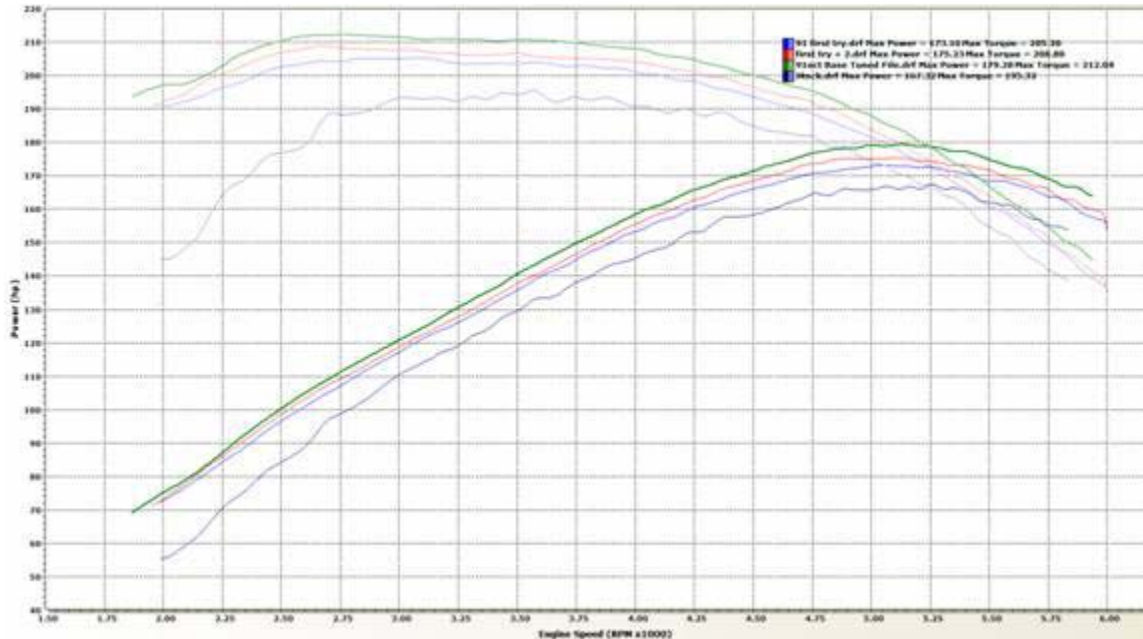


Below is a graphical view of the datalog that was done for these two files. There is clearly a difference between the spark advance with very minimal change to the dyno graph.





A similar test was performed on the Dynojet using much smaller increments. We used our starting file that was made in the office. We saw an increase of 6 hp. Then we added two degrees of timing and saw an increase of 2 hp. Finally, we decreased WOT fuel by 2% and saw an increase of 4 hp. Every small change made yielded a change on the dyno graph.



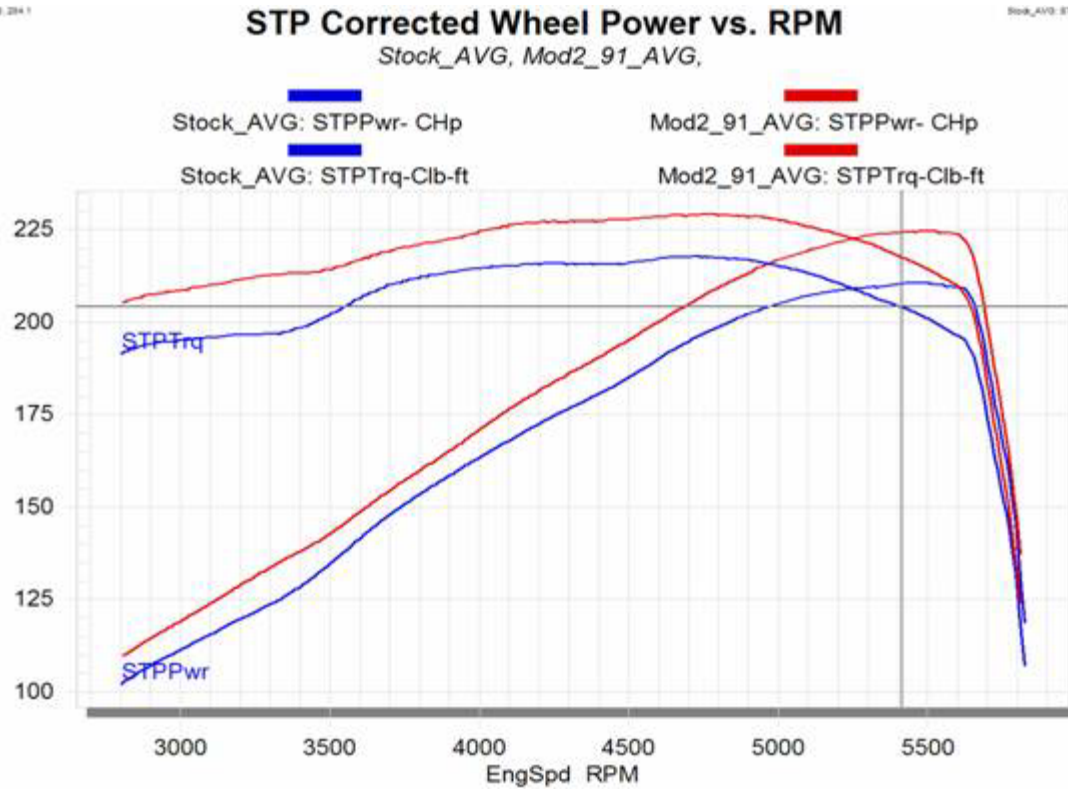
91 first try.drf	Max Power = 173.10	Max Torque = 205.20
first try + 2.drf	Max Power = 175.23	Max Torque = 208.80
91oct Base Tuned File.drf	Max Power = 179.28	Max Torque = 212.04
Stock.drf	Max Power = 167.32	Max Torque = 195.32

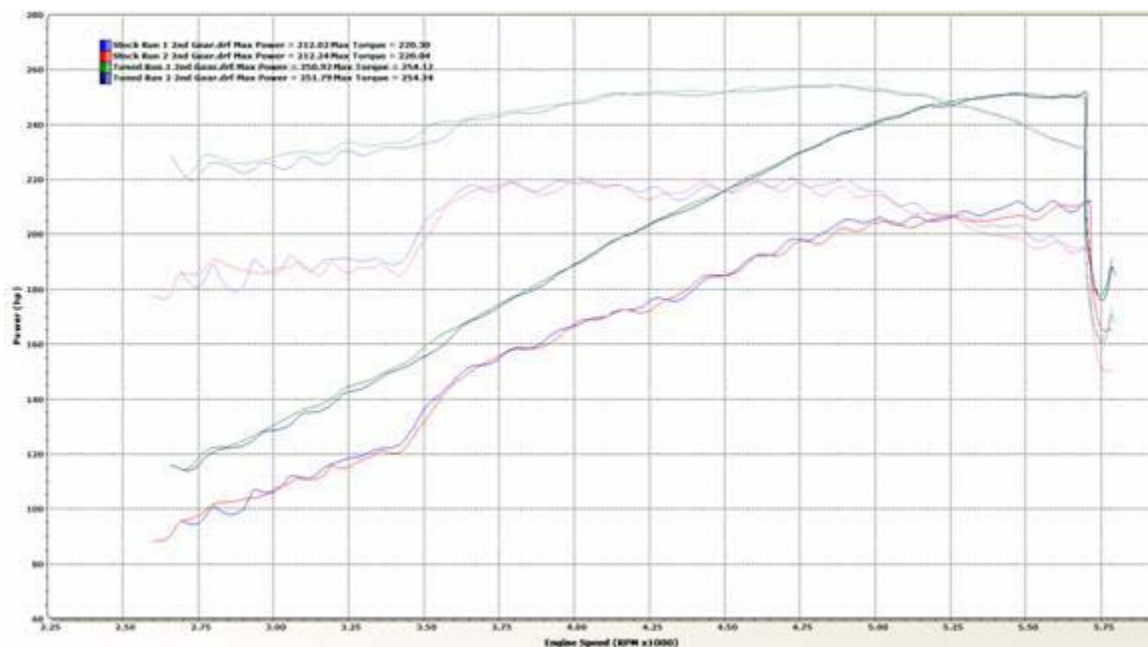
91 first try.drf	90.94 °F, 30.26 in-Hg, Humidity: 35%, STD: 1.02
first try + 2.drf	91.22 °F, 30.27 in-Hg, Humidity: 36%, STD: 1.02
91oct Base Tuned File.drf	91.82 °F, 30.28 in-Hg, Humidity: 33%, STD: 1.02
Stock.drf	90.38 °F, 30.26 in-Hg, Humidity: 44%, STD: 1.02

We wanted to eliminate the possibility of this being related to one type of vehicle, so we did the same experiment with an 07 Chevrolet Silverado 4.8L. The stock run was 210.6 hp. The tuned run was 224.5 hp for a difference of 13.9 hp.





We took the same truck over to the Dynojet dyno and performed two stock runs and two tuned runs. The stock run yielded 212.24 hp. The tuned run yielded 251.79 hp for a difference of 39.55 hp.



Stock Run 1 2nd Gear.drf	91.90 °F, 30.30 in-Hg, Humidity: 36%, STD: 1.02
Stock Run 2 2nd Gear.drf	93.95 °F, 30.31 in-Hg, Humidity: 38%, STD: 1.02
Tuned Run 1 2nd Gear.drf	93.82 °F, 30.31 in-Hg, Humidity: 34%, STD: 1.02
Tuned Run 2 2nd Gear.drf	94.43 °F, 30.30 in-Hg, Humidity: 33%, STD: 1.02

Stock Run 1 2nd Gear.drf	Max Power = 212.02 Max Torque = 220.30
Stock Run 2 2nd Gear.drf	Max Power = 212.24 Max Torque = 220.04
Tuned Run 1 2nd Gear.drf	Max Power = 250.92 Max Torque = 254.12
Tuned Run 2 2nd Gear.drf	Max Power = 251.79 Max Torque = 254.24

Dyno Comparison 2WD vs AWD  
This test was to compare the AWD dyno to the 2WD dyno.

