

PROVE IT!

WE PUT HORSEPOWER CLAIMS FROM ROYAL PURPLE AND K&N FILTERS TO THE TEST

COURTESY OF

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WE'VE ALL READ AND HEARD THE CLAIMS THAT YOU CAN PICK UP INSTANT HORSEPOWER JUST BY INSTALLING, ADDING OR SWITCHING TO THIS PRODUCT OR THAT

The majority of such claims are true and, in many cases, the proof is easily seen, felt or heard. Install a turbo, and you feel the effect when you put the pedal to the metal. Add a performance exhaust, and you immediately hear the difference.

But what about products that don't elicit such corporeal confirmations that they're working? Low rolling resistance tires, for example, and engine lubricants and air filters? Purchasing such items can fall into the area of buyer beware.

We decided to find out if claims made by two well-known companies — Royal Purple Synthetic Oil and K&N Engineering — are true. For our test, we used a 2005 Chevy Malibu Classic with the 2.2L four, automatic transmission and about 65,000 miles on the odometer.

We arranged with Lucio Tapia at K&N to use the company's SuperFlow chassis dyno (running WinDyn V2.7) at the company's Riverside, California, headquarters. Dyno technician Dave Davey performed the tests, starting with the baseline test with the factory oil and air filter installed.

After adding Royal Purple's synthetic oil and a K&N air filter, the results, while not earth-shaking, were positive. We gained 2.9hp after adding Royal Purple, and an additional 1.12hp after installing the K&N OE replacement air filter. That's a net gain of 4.02hp, or about 5 percent.

We also added a bottle of Purple Ice Radiator Super-Coolant Additive, a high-performance, synthetic, radiator-coolant additive. It reduces engine heat by reducing the surface tension of the radiator fluids for improved heat transfer. On our test vehicle, the additive reduced the radiator coolant temperature by 18 degrees.

In a world awash with exaggerated claims and advertising hype, we got proof that the claims made about these particular products are true.

1 We added Royal Purple SAE 5W-30 High Performance Motor Oil, Purple Ice Radiator Super-Coolant Additive and a K&N High-Flow cartridge oil filter.

2 After we established the baseline figures, we drained the petroleum-based oil.

3 The OE paper oil filter was removed next.

4 Then a K&N canister oil filter was installed. K&N uses resin-impregnated cellulose filter media, allowing for higher flow rates while providing outstanding filtration.

5 We then added 5 quarts of Royal Purple oil.

6 The Purple Ice was also added to the coolant reservoir, and the car was driven for 20 minutes at varying speeds to make sure all engine components were thoroughly coated and that the engine was up to operating temperature. Then we put the car on the dyno again and established new figures



K&N technician Dave Davey began by running our 2005 Malibu Classic on a SuperFlow chassis dyno to establish the baseline horsepower and coolant temperature numbers.



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- 7** Next, the OE paper air filter and rubber ring were removed from the air box and discarded.
- 8** A cotton-gauze K&N panel air filter was installed next. The K&N filter carries a million-mile warranty and goes up to 50,000 miles before cleaning and re-oiling are required. The car was driven for another 20 minutes, before being run once more on the dyno.
- 9** The large monitor of the Super-Flow chassis dyno shows the horsepower, torque and much more.
- 10** This monitor view shows the horsepower curve with a hiccup at about 5,700rpm, probably due to a partially fouled spark plug.
- 11** The dyno chart numbers show a gain of 4.02hp — about a 5-percent total gain — proving that the product claims in this case are true.

RECYCLE YOUR USED OIL

You can help save energy and valuable resources by recycling the used motor oil from your car, truck, boat, recreational vehicle or lawnmower. Recycling is one way you can demonstrate your commitment to maintaining a clean environment.

By taking your used motor oil to a collection center, you are keeping it out of your drinking water, off the beaches and away from wildlife. Recycling used oil allows us to continue to enjoy the clean water that many of us take for granted every day.

Many service stations, auto parts stores, repair facilities, quick lubes and local government agencies will assist you in recycling your used oil and filters. Additionally, your local government or recycling coordinator may be able to identify curbside or other recycling programs in your area. There are more than 12,000 community-based, oil-recycling locations across the country.

The best way of locating a nearby collection center is to visit www.earth911.org or call their toll free hot line, 1-800-CLEANUP. They even have a free iPhone app, iRecycle. The site also has information on recycling other items like batteries, electronics and aluminum.

