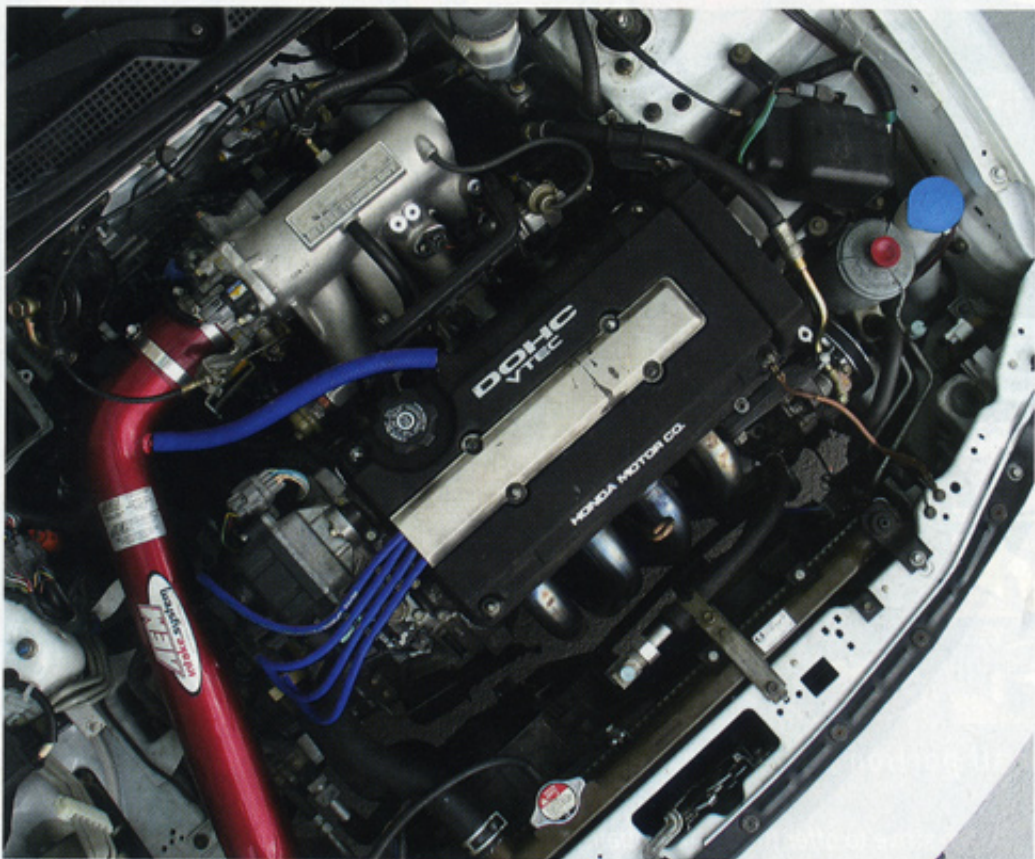


50-STATE SMOG-LEGAL POWER, PART II

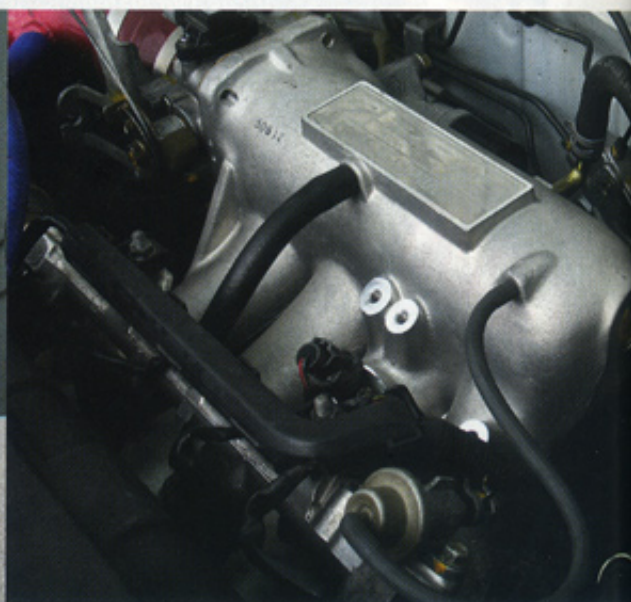
Skunk2 and Unorthodox Racing Delivers The Goods

Text & Photos By Robert Choo



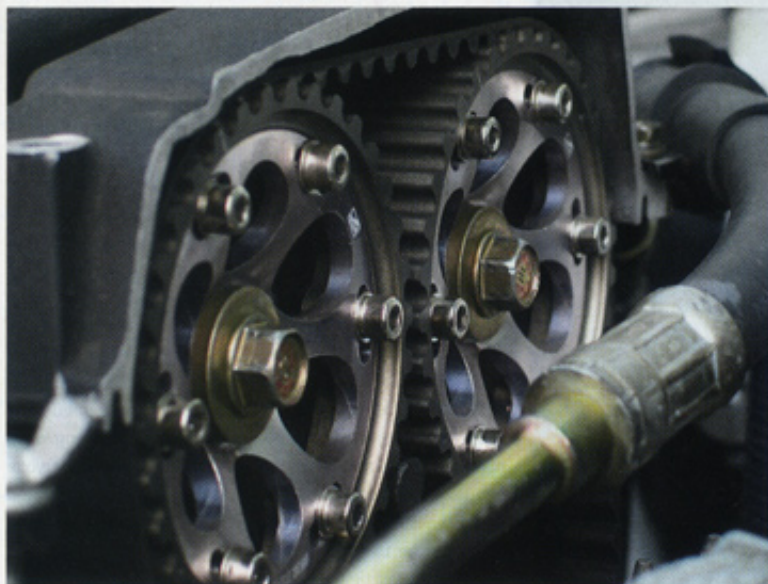
If you are a performance enthusiast you probably know someone (or maybe it's happened to you) who has been pulled over and given a ticket to go see the dreaded "referee" at the DMV. Well get use to it. Law enforcement officials are becoming savvy about performance parts and are handing out fix-it tickets like they are going out of style.

If you are unlucky enough to live in California, government officials have just set up a \$5 million task force to teach law enforcement officers how to look for performance products that are less obvious like boost controllers, fuel com-





The Skunk2 camshafts are constructed from brand new chilled cast cores and carry a CARB E.O. number for 50-state legality.



For maximum horsepower we had the Skunk2 adjustable cam gears degreed using a degree wheel.



The UR pulley set made an improvement of 3.0 peak horsepower but gains as high as 5.0 horsepower can be realized.

puters, upgraded downpipes, etc. So what is a performance enthusiast to do, drive a stock car? Fortunately for us manufacturers have gone the extra mile and undergone emissions testing to make their products 50-state legal.

With our project Integra we fell in love with 50-state legal performance upgrades. Being able to have a police car follow you and not break out in a sweat because you know your car is legit is the greatest feeling (and a new feeling for us). This project vehicle is now our favorite to drive because of the minimal cop-pulling-us-over risk.

In Part I we increased the intake and exhaust flow of the Integra and we were able to generate nearly 25 additional horsepower to the wheels on

the Dynojet. Best of all, every single product we installed with the exception of the Skunk2 exhaust system carries a CARB E.O. number. This means the dream-come-true-reality that if we get pulled over and the police officer asks us to pop the hood we have nothing to worry about. Still such a novel concept to us. And although the exhaust does not carry a CARB exemption, with the silencer installed the exhaust system should meet California stringent 95-decibel sound law.

For this round of modifications we went back to Skunk2 for its Stage 1 performance billet camshafts. Made from brand new chilled cast cores, the Skunk2 camshafts feature a 252-degree intake and 249-degree exhaust duration at



50-STATE SMOG-LEGAL POWER, PART II



Keeping the driver secured in place at the track is a Buddy Club bucket seat mounted on Bride seat rails.

1mm of lift (with a maximum lift of 11.5mm intake and 10.8mm exhaust). The Skunk2 cams work with the stock valvetrain and retains a fairly stock idle. And yes, the Skunk2 Stage 1 camshafts are 50-state legal with a CARB EO number—the only one of its kind that we know about. Installation is an R&R affair but valve lash had to be set to 0.007 inches on the intake and 0.008 inches for the exhaust on a cold engine. For maximum performance the camshafts should be dialed in with the use of offset cam keys or with adjustable cam gears.

Prior to the installation of the camshafts we re-baselined the B18C engine and this time around the vehicle produced 167.1 horsepower to the wheels. For a true before-and-after testing of any performance product a new baseline should be run each time to ensure accurate data. Our guess for the 1.7 horsepower loss from the last time we test-

ed was due to the slightly warmer afternoon temperature compared to the cooler morning from our prior testing. With the camshafts in place and tuned, the GS-R generated 177.5 horsepower, an increase of 10.4 horsepower over the factory GS-R cams. The Skunk2 cams drive like the stock units with the exception of a slight "loping" at idle.

The second victim on our smog-legal performer hit-list was an Unorthodox Racing (UR) underdrive pulley set. The UR set comes with an underdrive billet aluminum power steering, alternator and front pulley. The lighter weight of the pulleys combined with the reduced parasitic drag of the underdrive design results in power gains throughout the power band.

Installing the pulleys required some elbow grease. We found the best way to remove the front pulley was to use a 1/2-inch pneumatic impact gun with a 19mm deep socket. We know not everyone has access to an impact gun so the next best option is to hold the front pulley in place with a specialty tool. Both




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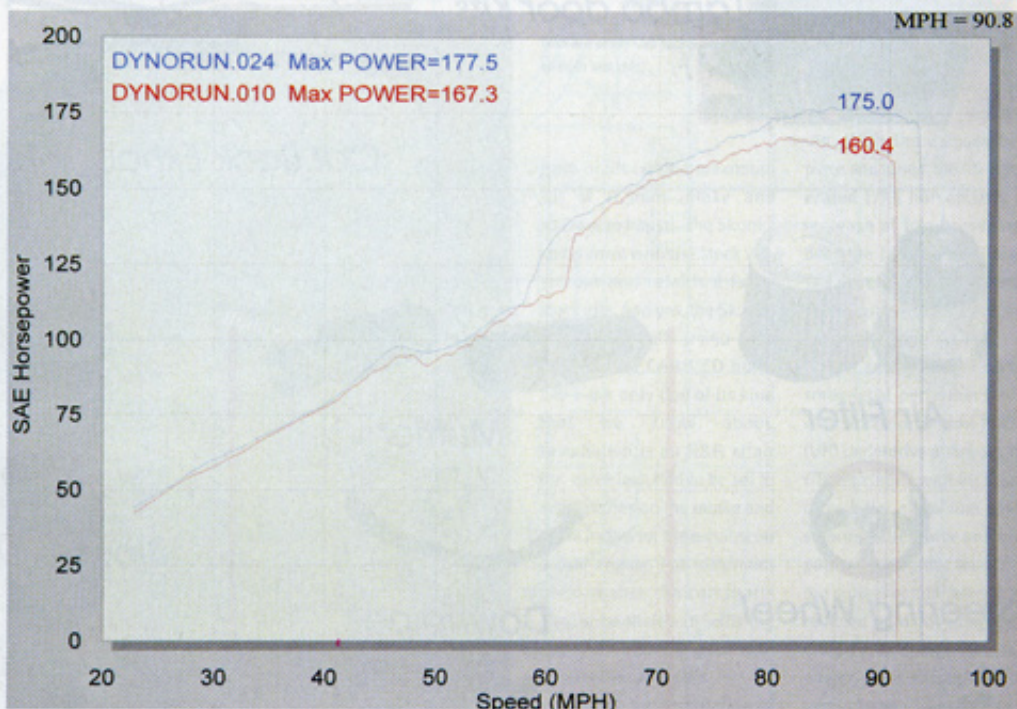
Snap-on and Moroso sell the specialty tool needed to hold the pulley in place while you remove the 19mm bolt. Once you loosen the front pulley the next thing on the agenda is to loosen the power steering nut. With the belt still installed you can loosen the nut with a 17mm wrench.

The hardest item to install is the alternator pulley, which does require the removal of the alternator. Removing the alternator requires the removal of the drivers' side axle and intermediate shaft. However, to save time, instead of completely removing the alternator we removed the two bolts that secure the unit to the bracket and tilted the unit upwards and impacted the nut off. This will save about an hour-plus worth of work.

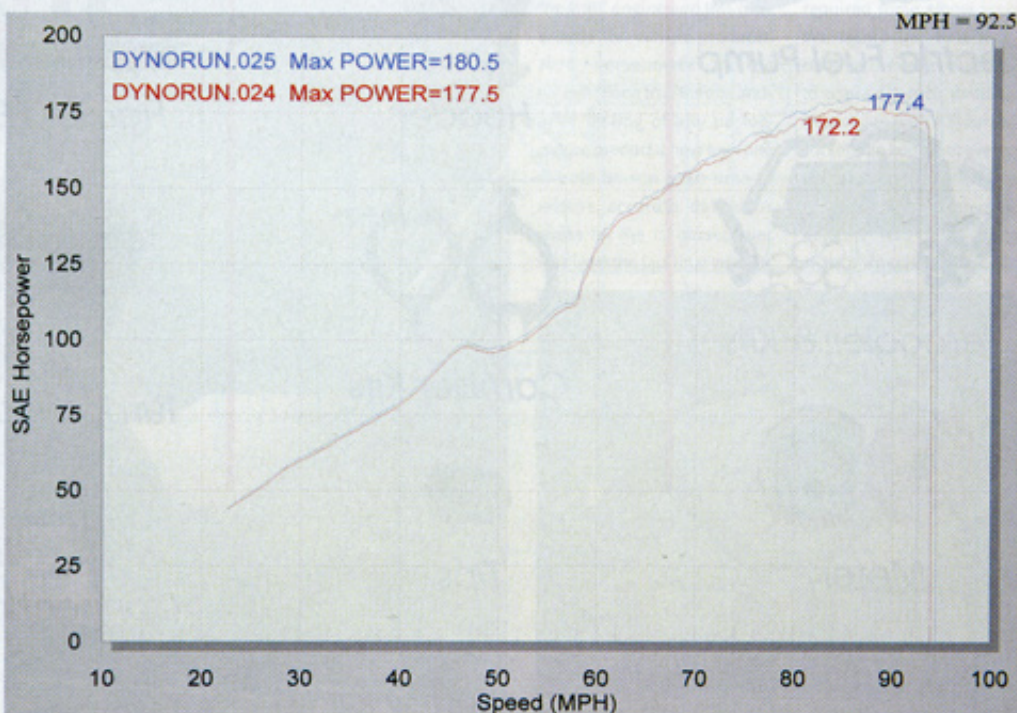
The UR pulleys did not disappoint and generated an additional 3.0 horsepower, pushing peak power to 180.5. From the dyno graph you can see the pulley making an impact throughout the power band making gains as high as 5.2 horsepower.

With just two performance products this go round we gained another 13.2 horsepower to the wheels. From our calculations we estimate the B18C engine is generating roughly 210 horsepower at the flywheel—that's over 116 horsepower-per-liter. Pound-for-pound that is a better horsepower-to-displacement ratio than the McLaren naturally aspirated supercar (now don't we feel cool).

So what's next for our smog-legal Integra? Let's just say our baby will be force fed. Stay tuned. 



Skunk2 Stage 1 versus Stock GS-R cams



UR pulley set versus stock pulleys

AEM/DC SPORTS
(COLD-AIR INTAKE AND HEADER)
(310) 484-2322

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(SF WHEELS & SEATS)
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(RT-615 TIRES)
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(951) 808-9888

UNORTHODOX RACING
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