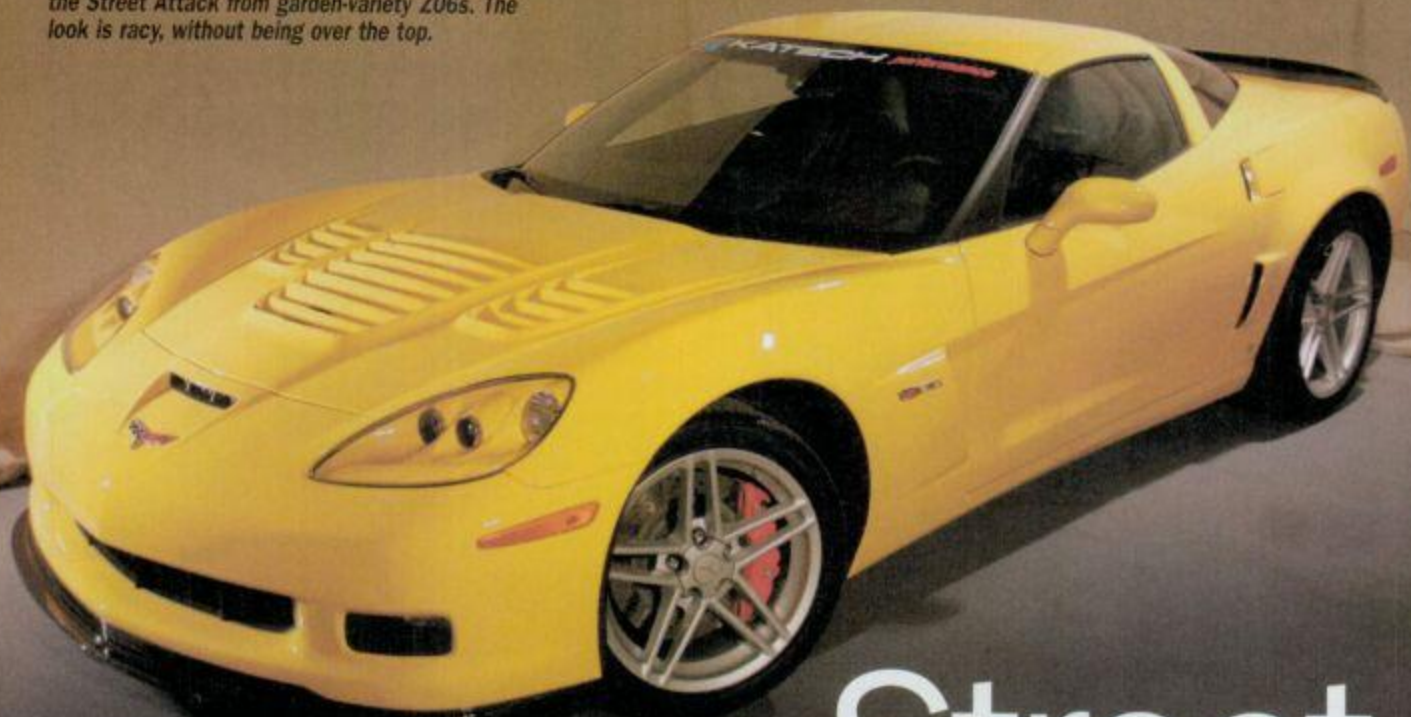


A front splitter and rear spoiler help distinguish the Street Attack from garden-variety Z06s. The look is racy, without being over the top.



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**Katech's 600hp LS7 upgrade blends
warp speed with surprising docility**

BY BARRY KLUCZYK

Increasing horsepower dramatically is not a simple proposition. In fact, the higher the baseline power level, the harder it becomes to produce a meaningful gain. Consider the progression of tuner performance during the last couple of decades. Twenty years ago, Reeves Callaway's twin-turbo Corvettes set the enthusiast market afire. At a time when the stock, TPI-injected 350 engine was rated at 245 horsepower, Callaway's hair-dried version made 345 horses. That's a serious increase, no matter how you measure it.

A few years later, the Corvette's LT1 engine was rated at 300 hp, while Callaway's

Supernatural version developed 400. Both Callaway engines generated 100 hp more than their stock counterparts. But looking at the percentages, the LT1 version only made about 34 percent more power than stock, whereas the original L98 version topped the 40 percent mark.

Most engine builders will tell you that extracting an extra 100 horses from any powerplant is no easy task, even with a power adder, such as a turbo. And as we mentioned at the top of this story, it's a whole lot harder when your baseline output is formidable to begin with.

Such is the case with Katech Performance's

Street Attack package for the C6 Z06. Katech adds around 100 hp to the already lofty 505-horse factory rating—without a pressure-inducing power adder. For those of you who aren't blessed with a calculator for a brain, that works out to be a 20 percent increase over stock.

"Yes, it's tough to get a substantial power increase from an engine as optimized as the Z06's LS7," says Katech's Caleb Newman. "But it can be done. We've just had more 'homework' time with the engine than just about everybody else."

The homework time Newman describes grew out of Katech's close relationship with GM and

the Corvette racing team. The company was familiar with the production and racing LS7 engines early on, and was flowing heads and determining optimal cam profiles almost before anyone else knew they existed. Consequently, Katech's approach to building more power with the LS7 seems relatively simple: more air in and out, thanks to a different cam; lightly touched heads; higher, 11:1 compression; and an obstruction-free exhaust system.

The devil is, as always, in the details. The stock Z06 already comes with a pretty big cam, and simply adding more lift and/or duration could have unwanted effects on idle, drivability, and stopping power (there needs to be at least some vacuum, you know). It's also difficult to improve on the LS7's heads, which are versions of the cavernous units used on the C5-R and C6.R race cars. They're already huge, with straight runners and pie-sized valves. Where do you go from there?

"The LS7 heads are about all you could ask for in size," says Newman. "What we do...is uncork the engine and enable it to move the air we know it can handle."

Inside the Engine

Not surprisingly, Katech was a little reluctant to give us the exact specs of the lobes of the camshaft. From personal experience, we can say it delivers a spine-tingling lope, yet remains surprisingly docile in everyday traffic. Of course, tuning is a big part of the equation. Katech's calibration raises the idle speed a couple hundred rpm, which helps maintain stoplight-to-stoplight friendliness.

"Drivability is the 800-pound gorilla in a car like this," says Newman. "Every vehicle or engine we build is a little different. We've certainly built Z06s with more than 600 horsepower, but streetability really suffers at levels much higher than that."

Drivability is, of course, a subjective term. Some Street Attack Z06s built by Katech have been equipped with optional World Challenge-spec camshafts and fully ported heads, which combine to push output past the 650hp mark—plenty of fun in a track car, sure, but probably not a great setup for stop-and-go commuting.

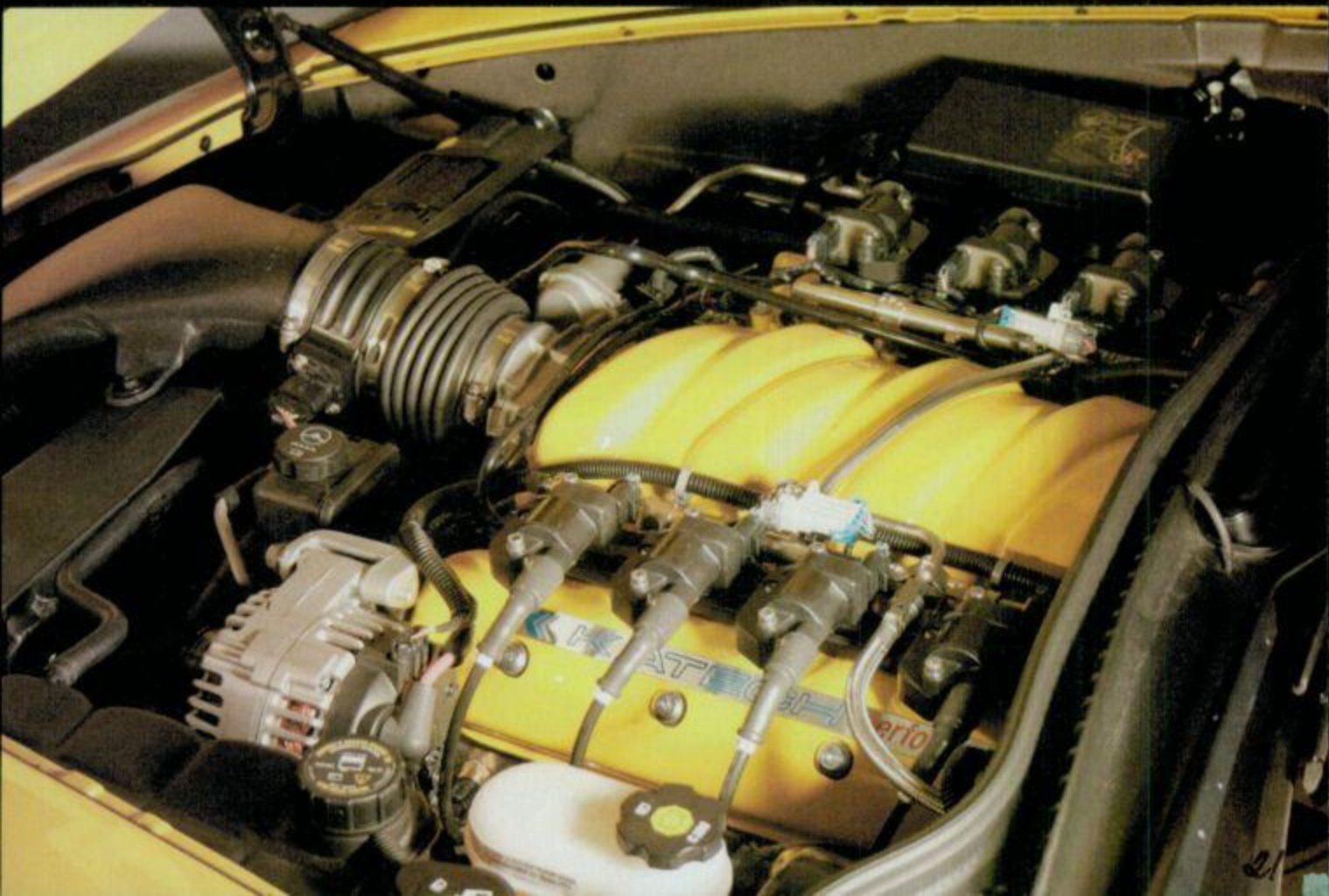
Regardless of their intended use, all Street Attack engines use a similar core. And while Katech's cam profile may be a secret, we can divulge some of the package's other engine details:

- Hardcoat-anodized forged aluminum pistons
- Stock titanium connecting rods with solid bronze small-end bushings (replace the stretch-prone stock split bushings)
- PSI high-lift valve springs and Katech titanium retainers, high-speed lifters
- Engine assembly is balanced and blueprinted, with deck-plate honing

Along with the engine upgrades, the Street Attack LS7 receives anodized AN oil fittings and braided oil-cooler lines, a Katech-designed billet oil-cooler adapter, a Ron Davis water-to-oil cooler radiator, an SLP 160-degree thermostat, a solid belt tensioner, and a set of Kooks headers.

The headers replace the relatively restrictive stock four-into-one manifolds and flow into a Corsa-supplied three-inch exhaust system. The resulting ruckus reminds everyone in the neighborhood that the LS7 is a racing engine at heart. It may not be a sound suited to all tastes, but a

Katech Performance's naturally aspirated Street Attack LS7 puts out 600 horsepower, thanks to a higher-lift cam, mild head work, and free-flowing exhaust. Compression is raised to 11:1, and new forged pistons are slipped in, too. A color-matched intake is optional.



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Z06 is hardly a street sleeper. We think Katech is right to deduce that most people writing the zero-laden check for the complete Street Attack package will want the Ferrari guys at the country club to know there's more than enough under the hood to muss an Enzo's hairpiece.

The Street Attack package is also noteworthy for what it *doesn't* change from stock. The factory's 90mm throttle body, intake manifold, 40-pound fuel injectors, high-flow fuel pump, and coil packs are all left alone.

More than Just Horsepower

Extending beyond the engine compartment, the Street Attack package also includes a SPEC Stage 3 clutch, a Katech-designed clutch bleeder, and a Koolmat trans-tunnel heat shield.

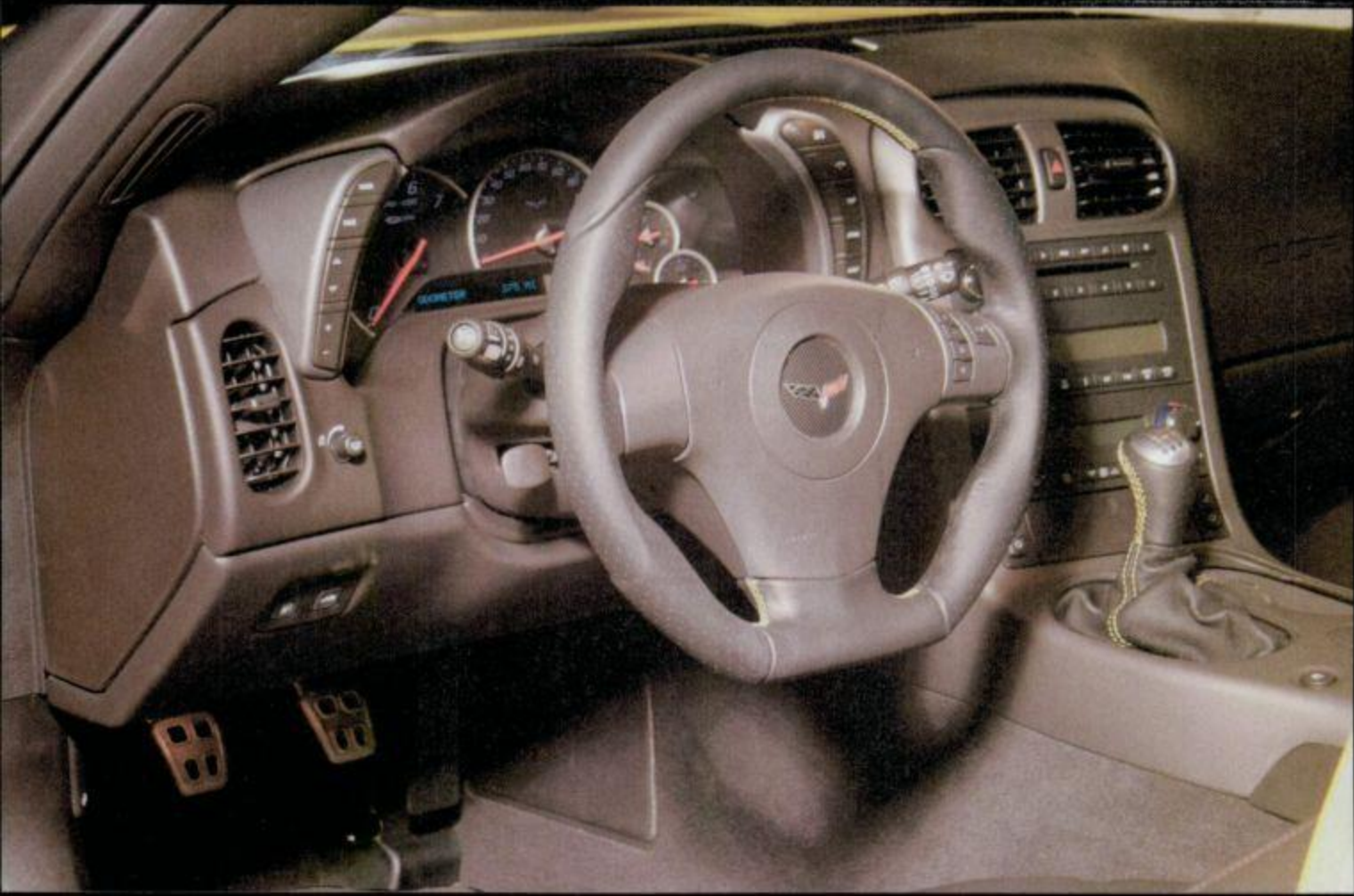


The optional World Challenge hood seems wholly appropriate for any car equipped with the upgraded LS7.

The yellow Z in our photos was equipped with just about every option offered by Katech. That's saying something because, as we mentioned earlier, all of the company's

projects are a little different. This car eventually was shipped to a wealthy customer in the Middle East, where cost, emissions regulations, and other trifles were of no

Color-matched stitching and other minor upgrades grace the interior. Katech is exploring additional interior enhancements, such as racing seats.



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object. (Fortunately for the rest of us, all of the items seen on the car are also offered individually, including the great-looking color-coordinated valve covers with ignition-coil-relocation brackets.)

A carbon World Challenge louvered hood (also available in a less expensive fiberglass version), front splitter, and rear spoiler were added as well. Inside the car, it's more of the same: high-class, color-matched upgrades throughout, although they are mostly made of leather, not carbon fiber. Katech is also working on suspension, brake, and other enhancements.

"The sky is absolutely the limit with these cars," says Newman. "If the customer can think of it, we can probably do it."

For us, the bottom line for a package like this is the performance quotient, because no matter how big the splitter or how many louvers in the hood, the car had better back up those race-track looks with commensurate performance. Certainly, 600hp would live up to just about anybody's expectations, but dyno numbers alone aren't the full measure of performance - it's how they're applied, particularly when they're claimed to be "streetable." In that regard, the Street Attack package measures up to our expectations.

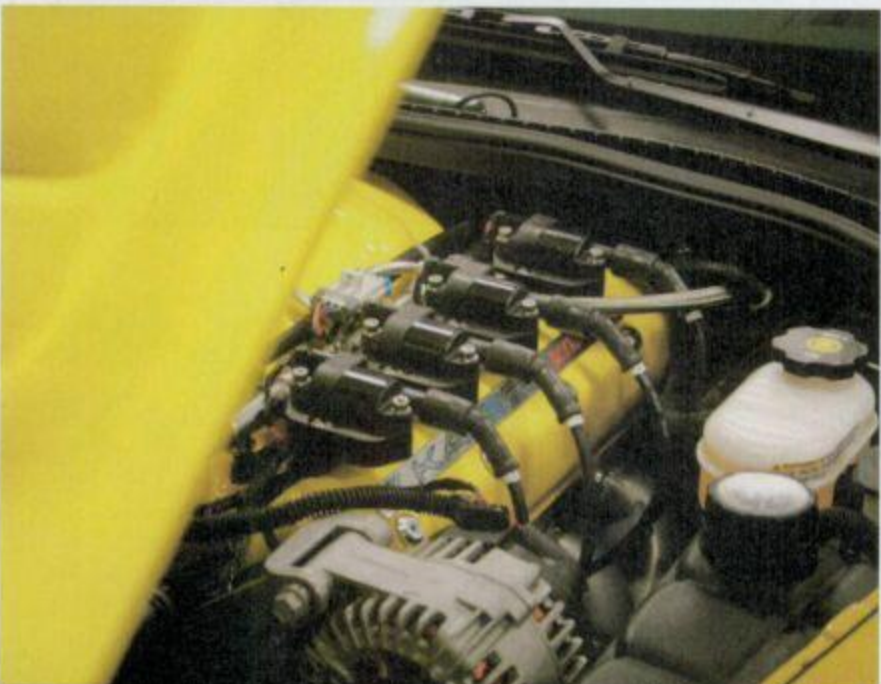
If anything, the Street Attack feels almost too docile on the street. It's easy enough to drive, has a race-car rasp to its exhaust note, and slips into hyperspace when the throttle blade goes horizontal. Compared with some peaky, pesky modifieds of only a few years ago, which delivered more drama and compromise for lesser performance, we expected more of a "fight" from the Katech Street Attack.

We didn't get it. Instead, we experienced a blazingly quick, great-sounding, and easily drivable car that exemplifies all the reasons why we're living in the golden age of Corvette performance. 

SOURCES

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Katech's great-looking aluminum valve covers and coil-relocation brackets add some underhood class. The covers were painted and badged for this Street Attack package, but they can be purchased individually for any engine.