

Backward-Compatible Cubes

Out goes the Four-Valve modular, in goes the 392



Text and Photos by Dale Amy

In the Dec. 2000 issue ("High-Speed Half-Breed," p. 78), we showed you Turbo Joe Spiteri's modular-transplanted, nine-second, green '91 LX notchback—the one he and Lidio Iacobelli had grafted together from a theft-recovery Fox chassis and a

DOHC 4.6 lifted from a late-model Cobra. This time, we're showing you the car that donated that modular, and why owner Roger Kappeli gave up his camper in favor of a stroked Windsor.

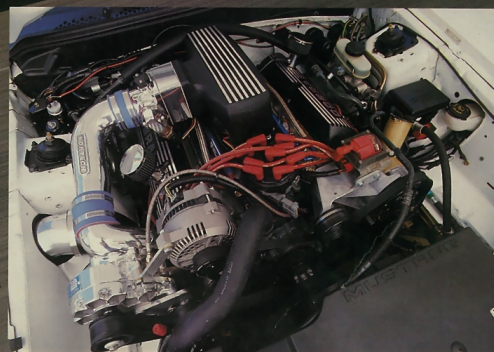
There was nothing wrong with the '97 Cobra convertible's 4.6. In fact, it had been treated to 14 pounds of boost

courtesy of a Vortech supercharger, along with long-tube headers, gears, and exhaust by Lidio's Alternative Auto Performance shop [(810) 463-0010; www.alternativeauto.com].

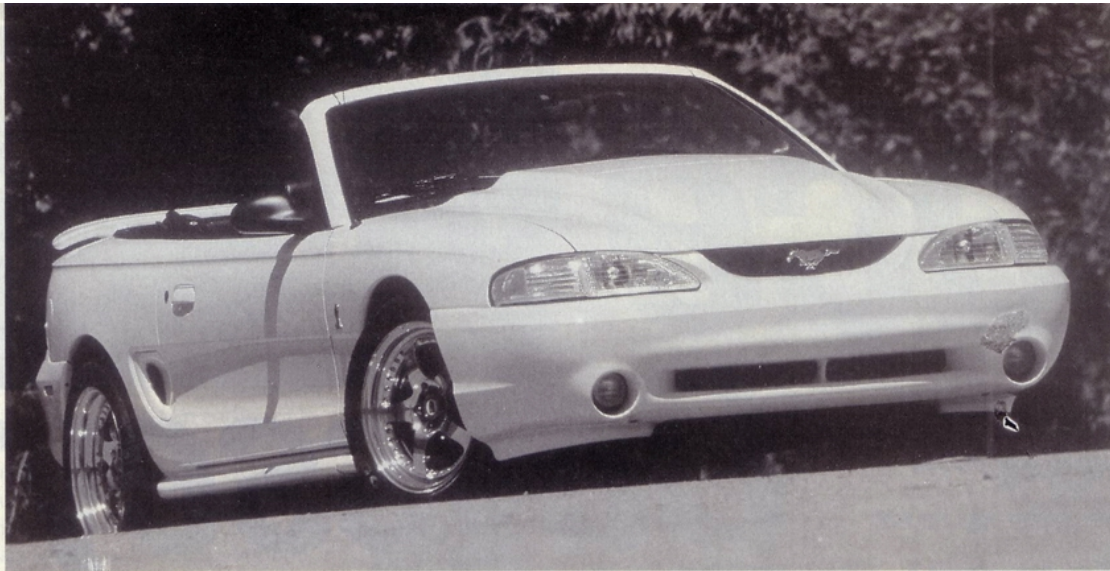
Why then would someone yank out a supercharged, low-mileage, high-tech, four-cam modular in favor of a pushrod

small-block? The obvious answer is torque—delightfully brutal torque of the kind that rearranges internal organs and keeps tire dealers in brand-new Lincolns. Torque that positively gushes from 392 inches and merely trickles from 281.

Lidio—who loves the heck out of these big Windsors—got the nod to perform the swap late in 1999. He got down to basics with a tough FRPP N351 four-bolt block, bored 0.030 inches and teamed with a Scat crank stroking 3.85 inches. Tied to the steel crank through Eagle rods is a set of 9.0:1 custom-forged pistons from Diamond Racing, a firm based in Clinton Township,



Horse Sense: If you don't want to go all-out with a built 392 such as Roger Kappeli's, Ford Racing Performance Parts' M-6009-A392 short-block—based on FRPP's rugged Sportsman 351 block—is a relatively affordable (\$2,995) way to add 392 ci to your Mustang.



We're happy to tell you the chassis has also received a few upgrades. It's lowered 1.5 inches by FRPP F springs and has a Griggs K-member to cradle the big Windsor. Sub-frame connectors stiffen the convertible uni-body, Koni dampers are used all around,

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Michigan, not far from Lidio's shop. Free-breathing Trick Flow Twisted Wedge R heads were bowl-ported but otherwise left untouched, and these take their orders from a Lunati cam having lift of 0.560 inches and 232-degrees duration.

A lot of us might be satisfied with 392 cubic inches breathing normally. But not Roger. At 6,200 rpm, his polished T-Trim Vortech huffs about 16 pounds of boost into the Downs breadbox intake. Gary Cook at Performance Fabrication Engineering formed up the car's 1½-inch-long tube headers to clear the six-speed T56 transmission (the original T45 would not bolt up to the small-block pattern, nor would it survive the Windsor torque).

While wheeling this thing around during our photo shoot, we immediately noticed there's enough torque right off idle that you could just about forget First and Second gears altogether and simply launch in Third, yet the hulking Windsor starts and idles around with utter factory civility. The grunt we expected—the impeccable manners were a bonus that Lidio attributes to the car's Speed-Pro injection, and especially its wide-band oxygen sensor option. "By putting the wide-band in and setting the system up for closed loop," Lidio tells us, "I can better achieve consistency out of the air/fuel ratio that I want." Meaning better driveability, power, and emissions. Being a speed-density system, Lidio could



This boost gauge regularly sees 16 psi, which is one reason Lidio likes Windsor swaps. The bigger small-blocks seem to keep a better grip on head gaskets.

skip the expense of a mass-air sensor, and besides, there was no practical way to use the Cobra's original EEC V, which had been programmed for the cammer's distributorless ignition.

Lidio is also proud that despite the complete remake, the conversion retains the Cobra's hydraulically boosted brakes and still benefits from air conditioning, though the latter required fitting '94-'95 SN-95 302 bracketry. "The trickiest part of the conversion," Lidio says, "was getting all of the air conditioning electrical to work properly...because originally the A/C compressor and fan were controlled by the computer." The solution was to utilize pressure solenoids to control both functions.

Apparently the Speed-Pro program has no problem with the engine functions. The combo produces 642 hp at the rear wheels and never dips below 400 lb-ft of torque from 2,000 rpm upward.

and a race-level Griggs torque arm is used to tame the 8.8-inch axle, which houses an Auburn diff and 31-spline Moser axles. When the car had its high-revving modular, Lidio had installed 4.10 gears. However, with the elephantine torque of the blown 392, 3.27s now live in the pot.

As can be seen in the photos, the subtle white drop-top doesn't exactly advertise all the guts and glory found within. In fact, aside from the aforementioned lowering and Cobra R hood, 3-inch exhaust tips and gorgeous HRE wheels are about the only giveaways. These highly polished rims measure 17x8 up front and a wide 17x11 out back—the latter wrapped in huge 315/35 rubber. But, even in Third gear, those big-ass tires don't stand a chance when this retro rocket gets to full boost. **5.0**

5.0 TECH SPECS

Block.....	FRPP N351
Cylinder Heads	Trick Flow Twisted Wedge R
Intake	Downs Ford
Camshaft	Lunati
Power Adder	Vortech T-Trim
Exhaust.....	Performance Fabrication
	Engineering 1½-inch-long tubes
Fuel Pump.....	Weldon with a
	BG Voltage Reduction box
Engine Management	Speed-Pro
Ignition	MSD 6AL
Transmission	TTC T56
Rearend	8.8-inch with an Auburn diff and
	31-spline Moser axles
Springs.....	FRPP F
Struts	Koni
Shocks	Koni
K-member	Griggs Racing
Rear Suspension	Griggs Racing Torque Arm
Wheels.....	HRE
Tires.....	BFGoodrich GSCs