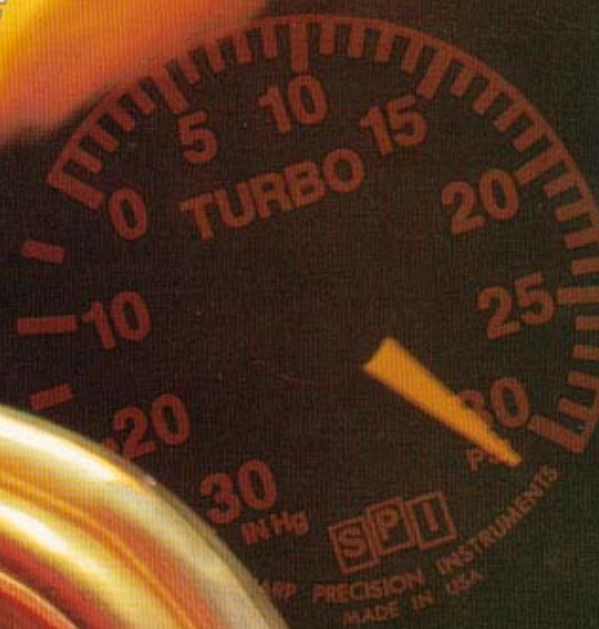


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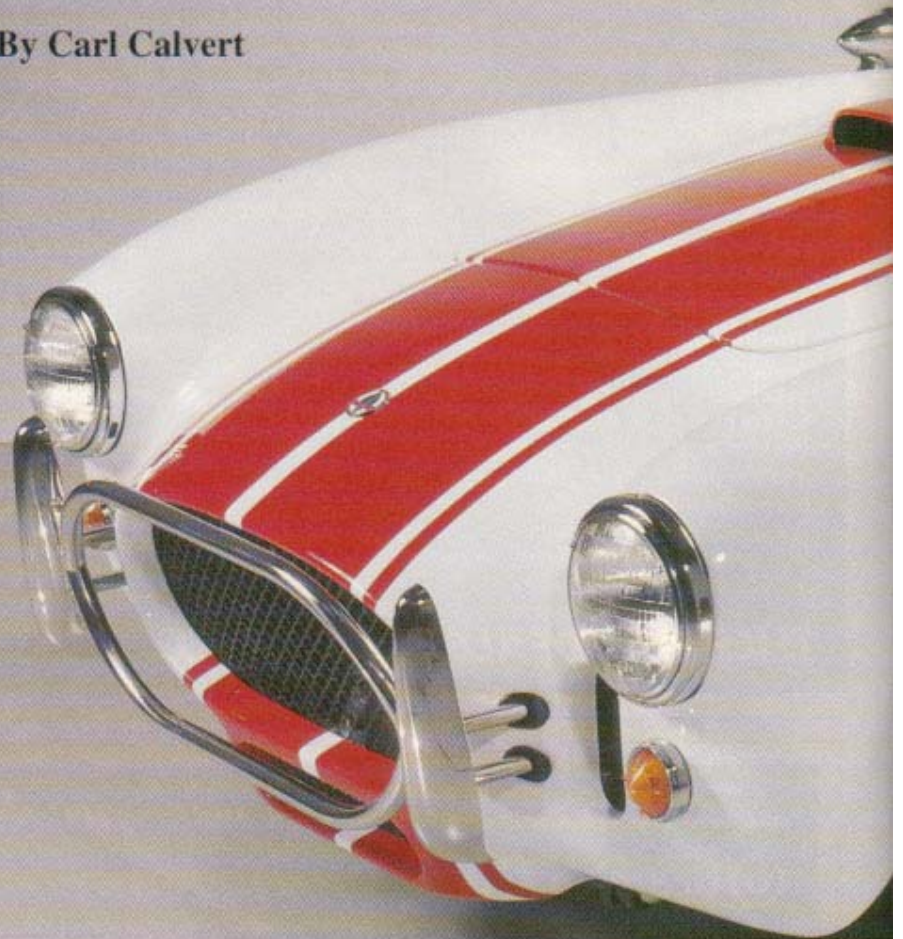


GN

11.80 @ 106.5 mph

This Cobra Replicar Is Powered By A Buick Turbo V6

By Carl Calvert



Although this '67 AC 427 Cobra replica roadster is put together with an odd assortment of parts acquired through many sources, it's definitely no Frankenstein monster. However, like Mary Shelley's concoction, the vehicle is powerful, well stitched together, is electrifying in the process and a real head-turner.

Cobra replicars are fairly common

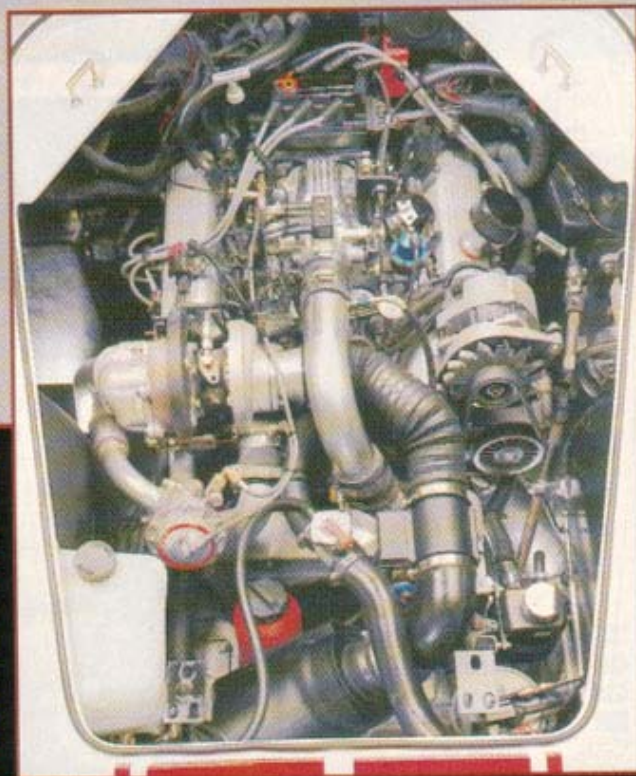
animals in the performance-vehicle kingdom, however what makes John Spina's unique and of interest to our readers is its Grand National drivetrain. Pop open the bonnet of the roadster and in its depths you'll find a turbocharged and intercooled Buick V6 powerplant, which is mated to a GM 2004R transmission.

"I originally built this car because it was a car I always 'lusted' for since



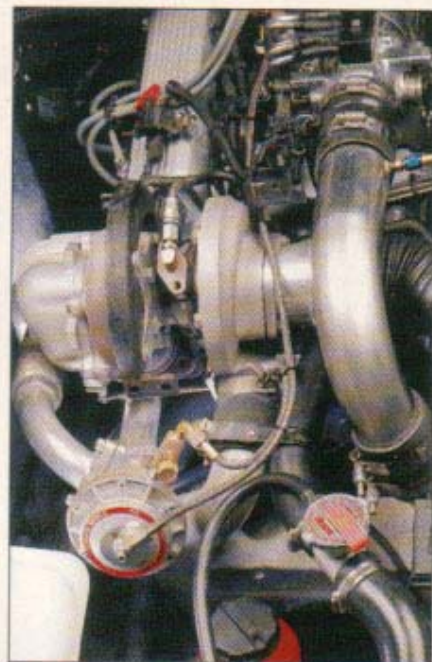
I was about 12 years old," explains John. "Once I made the decision to build it, my first instinct was to put the biggest, baddest, Ford big-block under the hood. But after talking with others who did just that, it became apparent that there was a weight distribution problem, along with various horror stories about overheating, understeer, etc. Along the way, I had become obsessed with the Buick

The 3.8-liter Buick Grand National powerplant provides plenty of motivating force for the Cobra replicar. Induction is provided by a Garrett TA-49 turbocharger, providing 21 psi of boost.

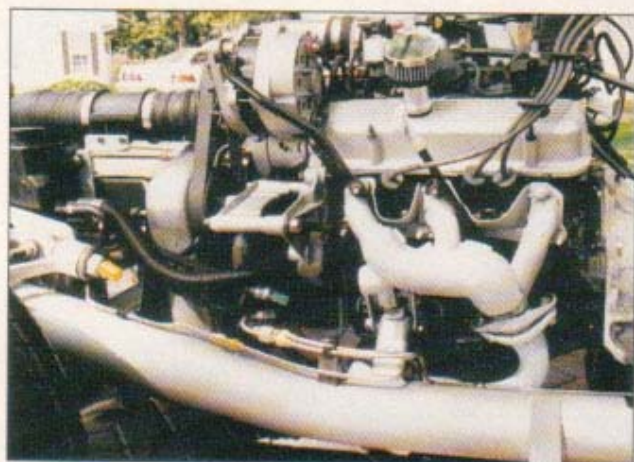




The interior of the Cobra has some extra-nice features, including an OEM Cobra-style steering wheel, simple-yet-elegant black vinyl upholstery, five-point racing belts and a full complement of VDO gauges.



The turbo's boost pressure is adjusted by a regulator installed in the passenger compartment. The Turbonetics wastegate inlet is in-line with the flow of the header, allowing for a straight path to the gate.



With the body off the car, the four-inch steel tube frame is clearly evident. This frame can support upward of 1000 horsepower. The turbo V6 powerplant is mated to a GM 200-4R transmission—the same combination found in the Grand National.

Grand National, since I drove my first one in 1986. So, I decided to mate the Shelby creation with a Buick powerplant, much to the dismay of the dyed-in-the-wool Ford guys who still believe the Cobra should only be powered by Ford."

The Cobra's driveline was installed with the body off the chassis, according to John. "As it turned out, the set-up fit like it was made for the

At the car's rear, the license plate proclaims the pedigree of the beast.

At the track the Cobra has sprinted to a best quarter-mile time of 11.80 seconds at 106.5 mph.





The replicar has that stunning Cobra design formed out of fiberglass with accents such as stainless-steel bumpers and overriders. The body is painted with six coats of Sikkens Ultra White and Ultra Red paint and clearcoated.

car. I used the stock Grand National intercooler brackets, pulley system, power steering set-up and driver's side header. I set the engine back in the chassis as far as I could and as low as I could. The result was a remarkable weight distribution of 56 percent rear and 44 percent front."

The Buick engine has the stock block and heads, however the cylinders have been bored .030 over and the heads were CNC ported and polished by Eastern Performance. The turbo has been upgraded to a Garrett TA-49 unit, dialed in for a maximum 21 psi of boost. A Turbonetics wastegate keeps boost pressure in check. Fuel injectors are 36 lb/hr Bosch Bluetops, fed by two MSD high-volume fuel pumps through a 3/8-inch feed. The intercooler is a stock GM unit and computer control is handled by a stock GM ECM with an Ultrachip thumbwheel chip. Exhaust gases are evacuated by custom-made steel-tube headers which have been Jet-Hot coated and are connected to a single three-inch Flowmaster muffler. The engine wiring harness is custom made by John and uses OEM Packard connectors and wire, 35 different color combinations, 45 connectors and 185 terminals.

The car is a replica of the 1967 427-powered AC Cobra, produced in fiberglass (the body of the original Cobra was made of aluminum). All

body and chassis parts of the car were fabricated by Everett-Morrison Motorcars of Tampa, Florida. The frame is constructed of four-inch round steel tubing and can support upward of 1000 horsepower. The rear suspension/differential is late-model Corvette, with single fiberglass leaf springs and a Dana 44 rearend running a 3.08:1 ratio. Front suspension is made up of a single transverse fiberglass leaf spring, gas shocks and power assist. Brakes are 13-inch discs on all four corners, power assisted by a GM Powermaster electric booster unit. Rolling stock is made up of Michelin tires of the 255/50-ZR16 (front) 315/40-ZR16 (rear) variety wrapped around Compomotive three-piece Cobra replica magnesium-style wheels.

Additional modifications of note include Corvette rack, power-assisted steering, an aluminum 18-gallon fuel tank, a custom-made, driveshaft and a custom four-row aluminum radiator. Emission control is handled by an EGR and canister. In fact, the car is emission-legal and gets 24 mpg on the highway. John purchased the car as a rolling chassis in August of 1995 and has been performing modifications ever since.

Interior refinements include a single SST rollbar, five-point racing belts and OEM Cobra-style seats. A

See **VENOM** on page 124

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VENOM


Continued from page 77

set of VDO gauges keeps track of engine functions and an OEM Cobra-style steering wheel keeps the car between the ditches. No-nonsense black vinyl upholstery lends a racy attitude and the door panels, interior and trunk are finished in upholstery and carpeting. The fiberglass body is fitted with stainless steel bumpers and overriders (tubular bumper bars) in the front and rear. The body is painted with six coats of Sikkens Ultra White and Ultra Red paint and then clearcoated.

The car is registered as a Buick Cobra showing two vintage years, 1987 and 1995 and the Illinois license plates read "GN Venom." Although John uses the car as a summer daily driver (it already has 8000 miles on the odometer), he also likes to put the Cobra through its paces at the track. "Although I originally built this car to be a daily (summer) driver, not a racer, I got 'snake bitten' by a few passes down the track and now I'm hopelessly hooked," he explains. "The car has beaten about 90 percent of all big-

block Cobras at Norwalk Raceway (Frankfort, Illinois) during a Cobra competition last summer. With an 11.93-second e.t., it took honors of being one of the Quick-8 finalists and was the only six-cylinder car competing," says John.

The future will bring a few modifications, according to John. "This past season, I found that the intercooler was not ducted properly, causing it to lose efficiency at higher speeds by drawing in heated radiator air. This led to severe detonation at the big end. My best e.t. was 11.80 at 106 mph—I coasted through the finish line. With a properly functioning and efficient intercooler, I should be able to shave a half second off the e.t. Also, the 3.08 rearend ratio will probably be upgraded to a 3.43 ratio and the transmission will be shifted manually. After a dyno session, I found that the transmission shifted much too low to produce maximum torque. My optimum shift point was shown to be around 5600 rpm. This will improve the e.t. as well."

This Cobra with Grand National motivating force should have no problem running in the low 11s once the car is tweaked for maximum performance and stands a good chance of reaching the 10s. With 10-second performance a definite possibility, this Grand Cobra should be venomous indeed! 

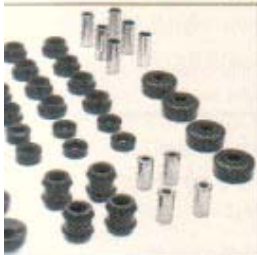
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