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**SYCLONE ALERT!**  
GMC's VETTE DESTROYER

# CAR CRAFT



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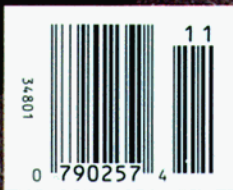
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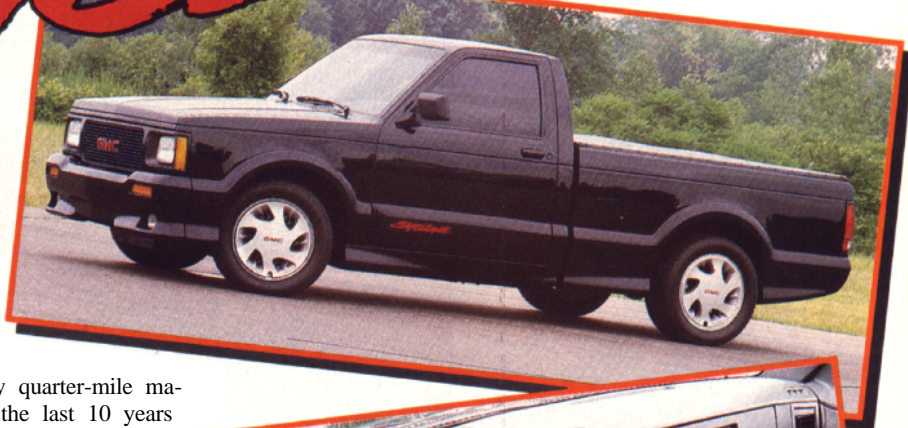




# SYCLONE

## There's A Big Storm Brewin' At GMC Trucks

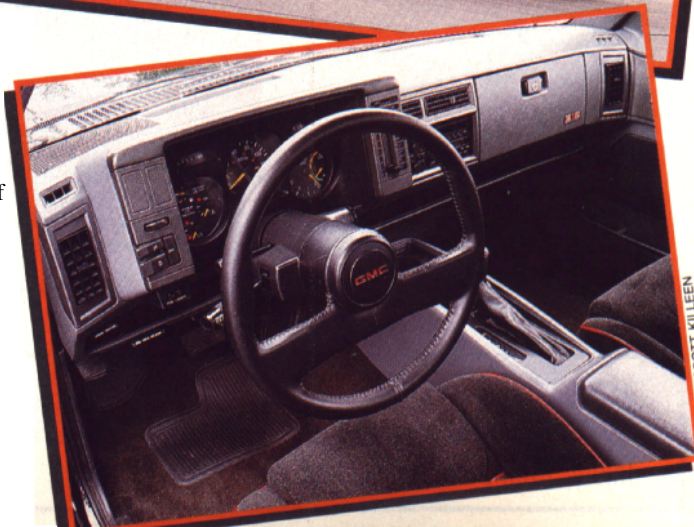
By Jim Losee



**A**sk people to name the fastest factory quarter-mile machine produced on this continent in the last 10 years and most will say either the Buick Regal GNX or the ZR-1 Corvette. And they'd be right . . . until now. We're here to tell you that the '91 GMC Syclone holds the title hands down. There are no Other contenders. Why do we say this? A 13.06-second elapsed time in the quarter mile is proof enough. And this was backed up by more than one run in the 13.0's, including several in the 13.08-second range.

What makes this truck so fast? To be perfectly honest, there are several things that help create this awesome accelerating package. First is the 4.3-liter turbocharged and inter-cooled 90-degree V-6 with 280 net horsepower at 4400 rpm and 360 lbs-ft of torque at 3600 rpm.

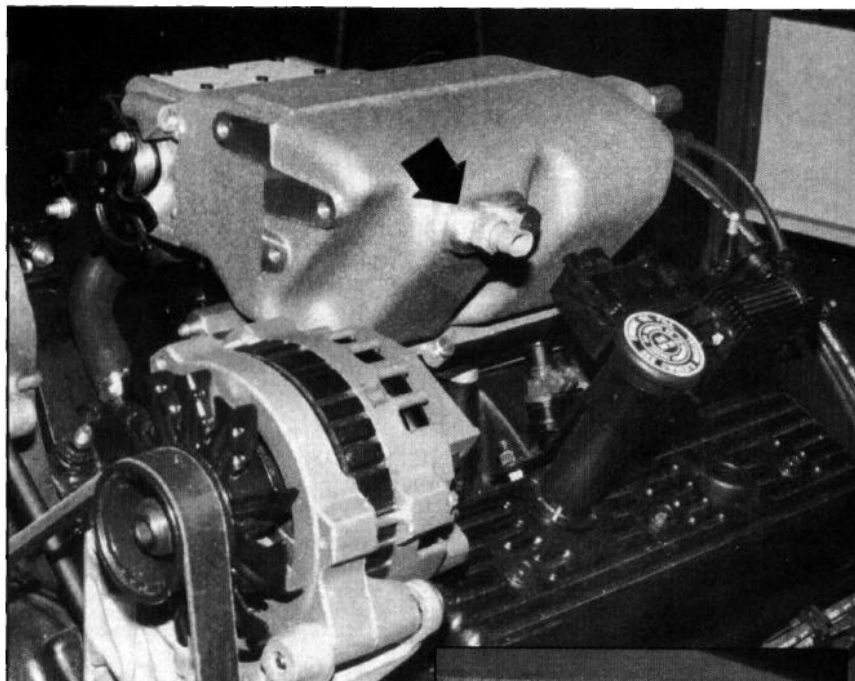
Second, the all-wheel-drive system that has been adapted from the current Safari van platform also contributes to the astounding performance. Suspension geometry has also been



PHOTOS BY SCOTT KILLEEN



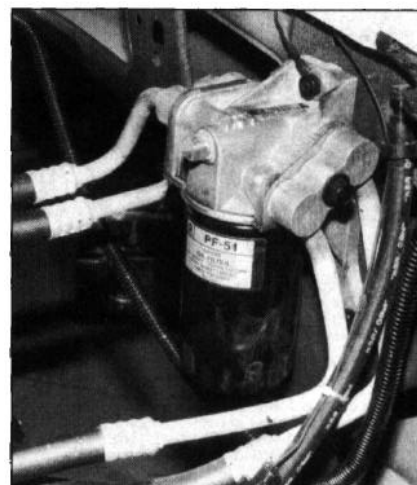
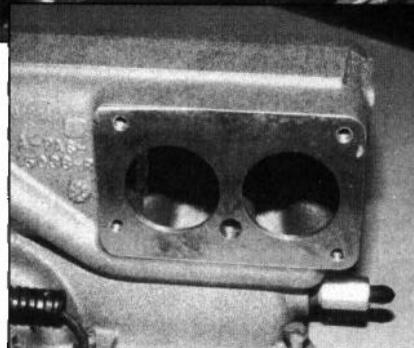
# Syclone!



The induction manifold for the Syclone turbo 4.3L is a two-piece aluminum casting that has all the outlets and bosses for electronic engine management, including a MAP sensor (arrow).

The air inlet on the Syclone is the same size as that of a 350 TPI engine. The throttle body comes from that engine.

To maintain adequate amount of clearance for the new intake, a small-diameter high-energy distributor is used.



The Syclone uses a remote-mounted oil filter which provides easier filter changing and clears away the lower part of the engine bay for exhaust clearance. Note that the lines look like they're from an A/C unit.

refined, resulting in an awesome-handling vehicle with specially calibrated shocks, springs, and torsion bars.

Third, also helping the adhesion characteristics is the use of an all-new tire developed by Firestone expressly for the Syclone.

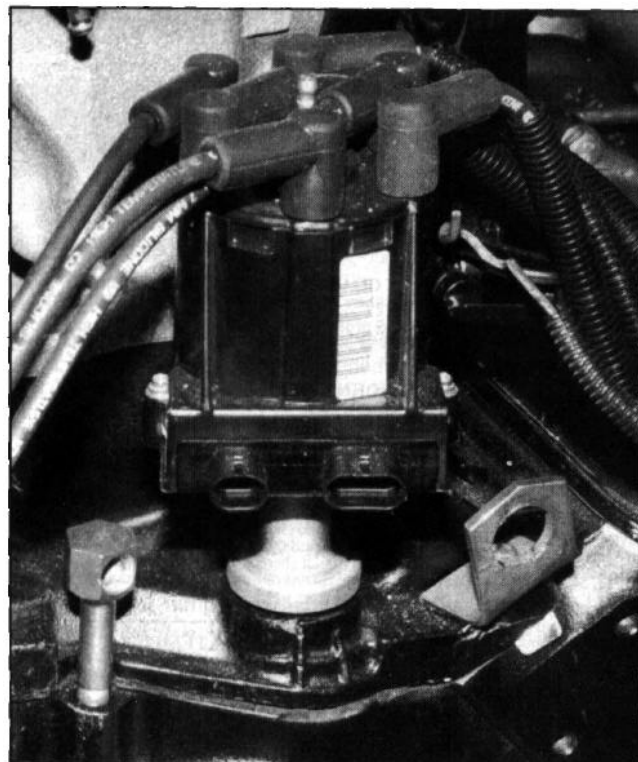
The basic short-block of the Syclone 4.3-liter (262cid) engine is the same as the production version with the exception of the special Corvette-derived hypereutectic pistons that give the engine an 8.35:1 compression ratio. To ensure adequate oil pressure and supply to the engine bearings and turbocharger, a Syclone-specific relief spring is installed in the oil pump. Keeping windage to a minimum is a baffled oil pan,

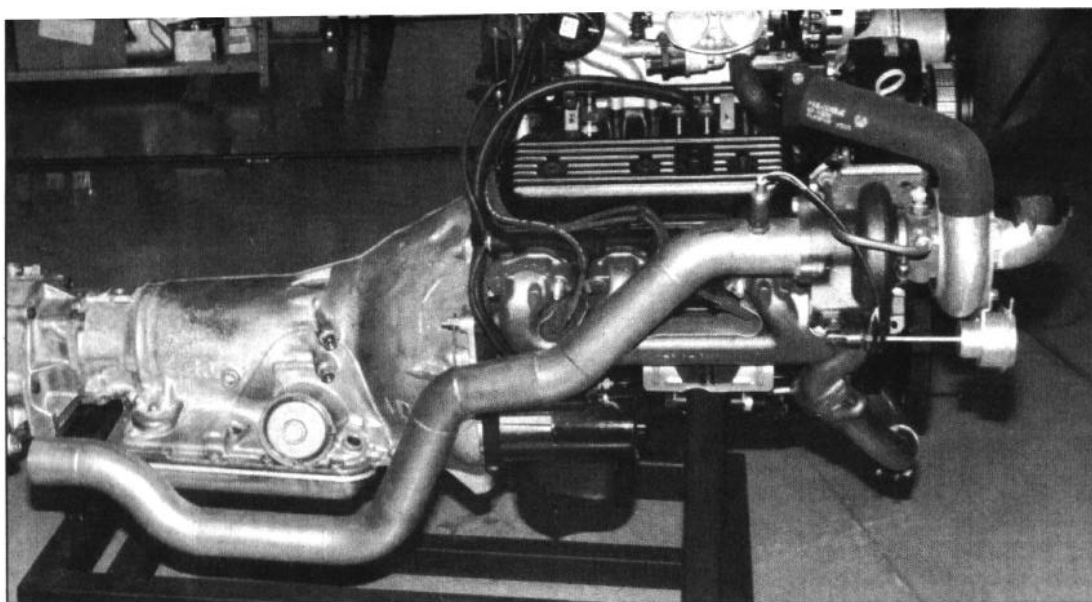
along with a special oil drainback valve in the pan itself. To contain all the cylinder pressure induced by the turbo, an extra-thick composite tire-ring head gasket is used on the turbo 4.3.

Induction is another area where the 4.3 in the Syclone differs from the stock 4.3, as a two-piece intake manifold holds the fuel injectors and the 350 TPI throttle body. Instead of the throttle body-type injector found in the stock 4.3, the Syclone uses a multi-port batch-style fuel injection with a separate Delco/Bosch injector for each cylinder.

To get the additional power for history-making performance, a Mitsubishi water-cooled turbocharger is used, pumping out 14 electronically controlled, wastegate-regulated pounds of boost. Lowering the intake charge temperature substantially and increasing power conversely is an air-to-water intercooler. This system features its own water supply and pump so that it isn't dependent on radiator coolant and its attendant high temperatures. With the supply container mounted where there is some sort of an airstream, the water for the intercooler will be quite a bit lower than the engine coolant. The pump for the intercooler is turned on via the vehicle ECM, which in turn gets its signal from a temperature sensor mounted in the cooler core.

Transferring the power to the wheels is the job of a 700R4 four-speed automatic trans with specially calibrated shift points to correspond with the power peaks of the turbo 4.3. Splitting the power from the transmission to all four wheels is a Borg/Warner 2440 transfer box with a 35/65 torque split front to rear. The rear axle features a 3.42:1 ra-





The exhaust system at the engine is special, with new cast-iron manifolds and crossover pipes. The 3-inch-diameter headpipe goes from the turbo into a stock Sonoma catalytic converter.

tio with limited slip, while the front axle uses the same ratio minus the limited slip.

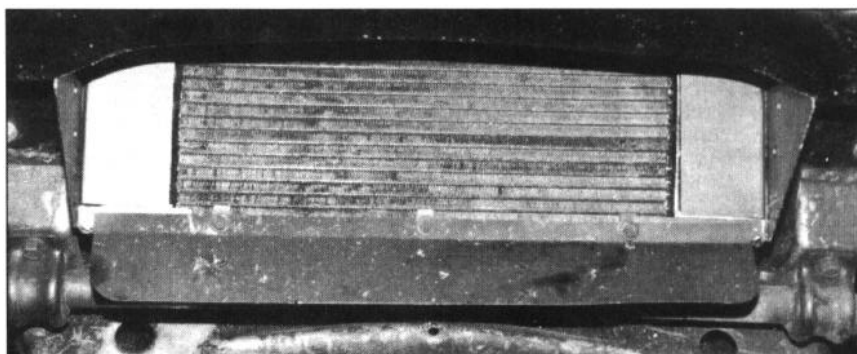
The rear suspension consists of leaf springs and a solid axle with specially valved heavy-duty shocks. What's really trick is the use of the four-wheel-drive Sonoma frame and front suspension with specific front torsion bars and a Syclone-specific 32mm front anti-roll bar that has a variable rate. Again, as with the rear, the shocks are special. The steering gear has a high-effort spool valve with a variable rate (13.0:1 to 16.0:1) to give the Syclone a very "performance" handling feel.

Getting the tremendous output of the turbo 4.3 to the pavement is a new tire developed for the Syclone by Firestone called the SVX. The tire size is 245/50VR16 all around, mounted on 16x8 aluminum wheels with a 1.6-inch negative offset in the front, and a 0.8-inch negative offset in the rear. The ride height of the Syclone is 1.25 inches lower than the standard two-wheel-drive version of the Sonoma.

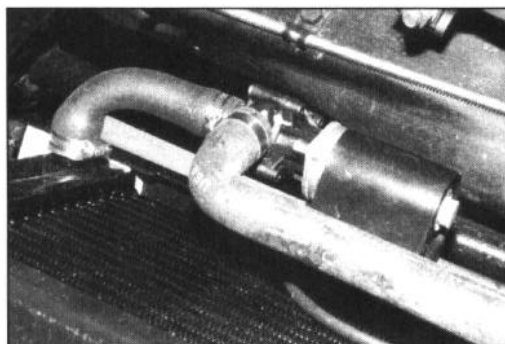
Braking is done via a power-assisted disc/drum arrangement with complete control ensured by a Kelsey/Hayes-developed anti-lock braking system. Front rotors measure 10.5 inches in diameter, while the rear cast-iron drums are the stock 9.5-inch Sonomas.

So now that you have reviewed the hard specs of the Syclone, and decided that you have to have one, you ask "What about the interior?" The interior is great as long as you had black in mind, as that's the only color GMC is going to make available. Black cloth contoured bucket seats with red piping are the only seat you can have, but they are comfortable. The steering wheel is a thick leather-wrapped piece and the speedo goes to 140 mph. All the other requisite analog gauges are also in the dash, including a tach, oil pressure, and boost gauge. Tinted glass, along with air conditioning, power windows and locks, and intermittent wipers, are also part of the Syclone interior package. Tunes are heard through an AM/FM stereo with a cassette player and equalizer and changing gears is done using a floor-mounted shifter.

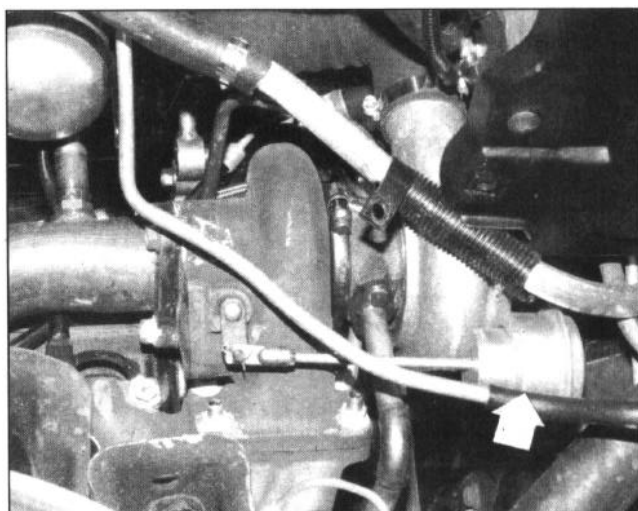
"What color paint can I get for the exterior?" To quote Henry Ford, "You can have any color you want, as long as it's black." Our pre-production test prototype had a black paint job with a finish that looked 10 miles deep, but don't



The intercooler mounts in front of the anti-roll bar in its own little housing with a metal scoop at its lower edge to pick up additional air. The cooler is mounted on about a 30-degree angle to ensure maximum clearance and thermal efficiency.



The water-to-air intercooler has its own separate cooling system, including this electric pump. The container for cooling the intercooler is mounted off the fender.



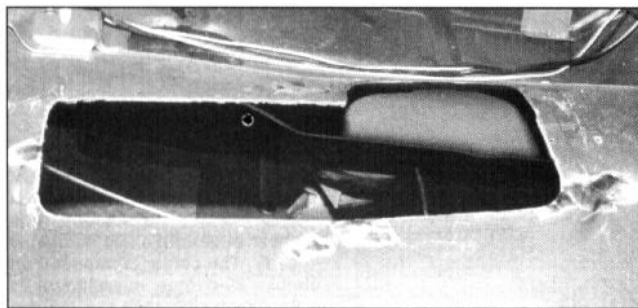
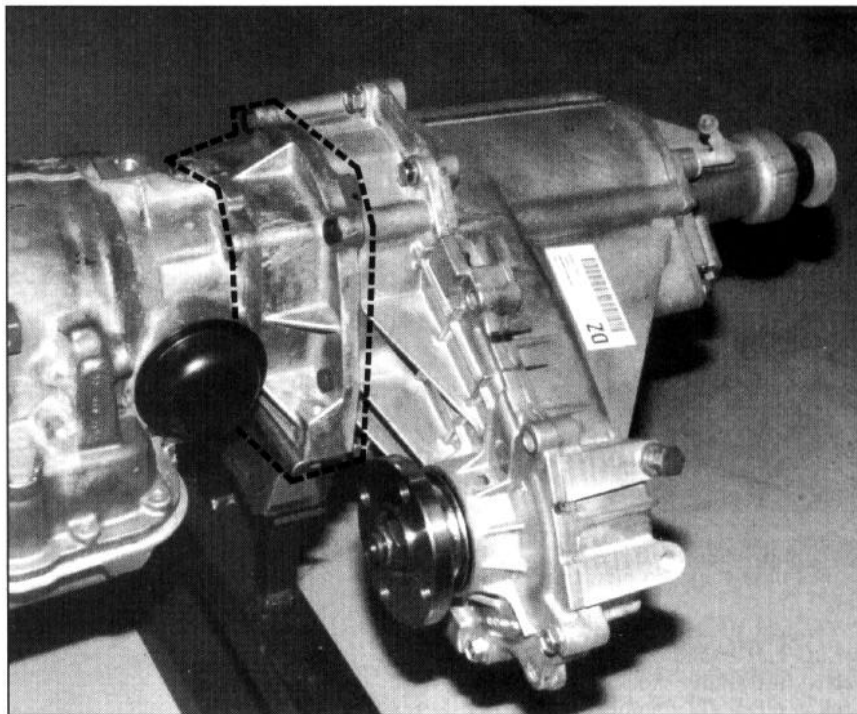
Engine packaging in the vehicle itself is extremely tight. The wastegate (arrow) is electronically controlled for 14 psi of boost to give 280 hp and 360 lbs-ft of torque.

# Syclone!

expect the production units to be quite the same. The overall style and execution of the Syclone is absolutely great, and if GMC wanted to give this little truck that "killer" look, they succeeded. It says "You mess with me and my tail lights are all you're gonna see."

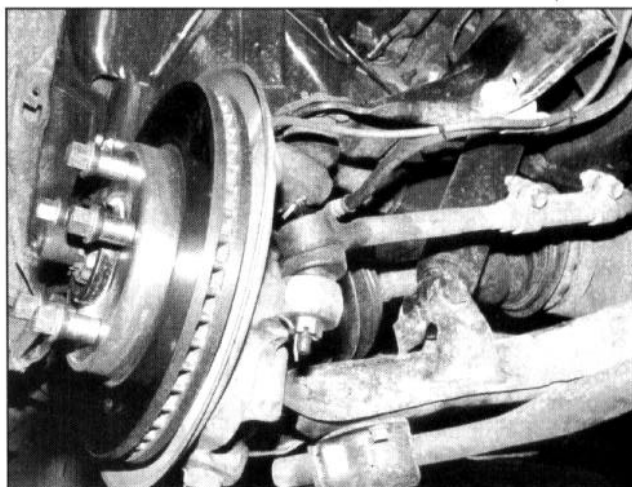
Driving the Syclone on the street is loads of fun, with its agile handling and impressive stopping capabilities, but damn, we like driving this pocket rocket at the strip. Man, oh, man does this beauty set you back in the seat on the launch using about 4 pounds of boost. Any more and the tires go up. Leave it in drive instead of OD for quarter-mile assaults, because at about the 800-foot mark, this little sucker marches to the

**Transmitting engine output to the wheels is a 700R4 automatic. With its specifically calibrated shift points, it shifts at 5500 rpm. In order to bolt the Borg/Warner 2440 transfer case to the back of the Syclone transmission, a special adapter had to be designed and built (outline).**



**The only modification to the basic Sonoma cab is this hole in the floorpan to accommodate the floor/console shifter and give a bit of clearance to the transfer case.**

**The Syclone front suspension is from the four-wheel-drive Sonoma truck, with relocated suspension mounting points. Syclone handling is enhanced by a 32mm front anti-roll bar with special torsion bars, and sits 1½ inches lower than a conventional two-wheel-drive truck.**



finish line like an outta-control F-16. GMC even admitted that the Syclone was faster than expected.

The good part about the Syclone is that GMC is going to make all you want to buy at about \$25,000 a pop, with an on-sale date of mid-January, if there aren't any delays. There will be no limited availability to drive the price up (as with the Buick GNX or 20th Anniversary Trans Am) and the Syclone will be serviced at any GMC dealer around the country. And, it's the fastest quarter-miler produced in this country. Watch out ZR-1, LS6, and GNX, because, as we said in the beginning, there's a big storm brewing at GMC Trucks and its name is Syclone! 🌩️

**Both the front and rear differentials house a 3.42:1 gear, but only the rear has limited slip. Note the steering damper (arrow) under the relay rod. It's used to isolate unwanted vibrations in the steering.**

