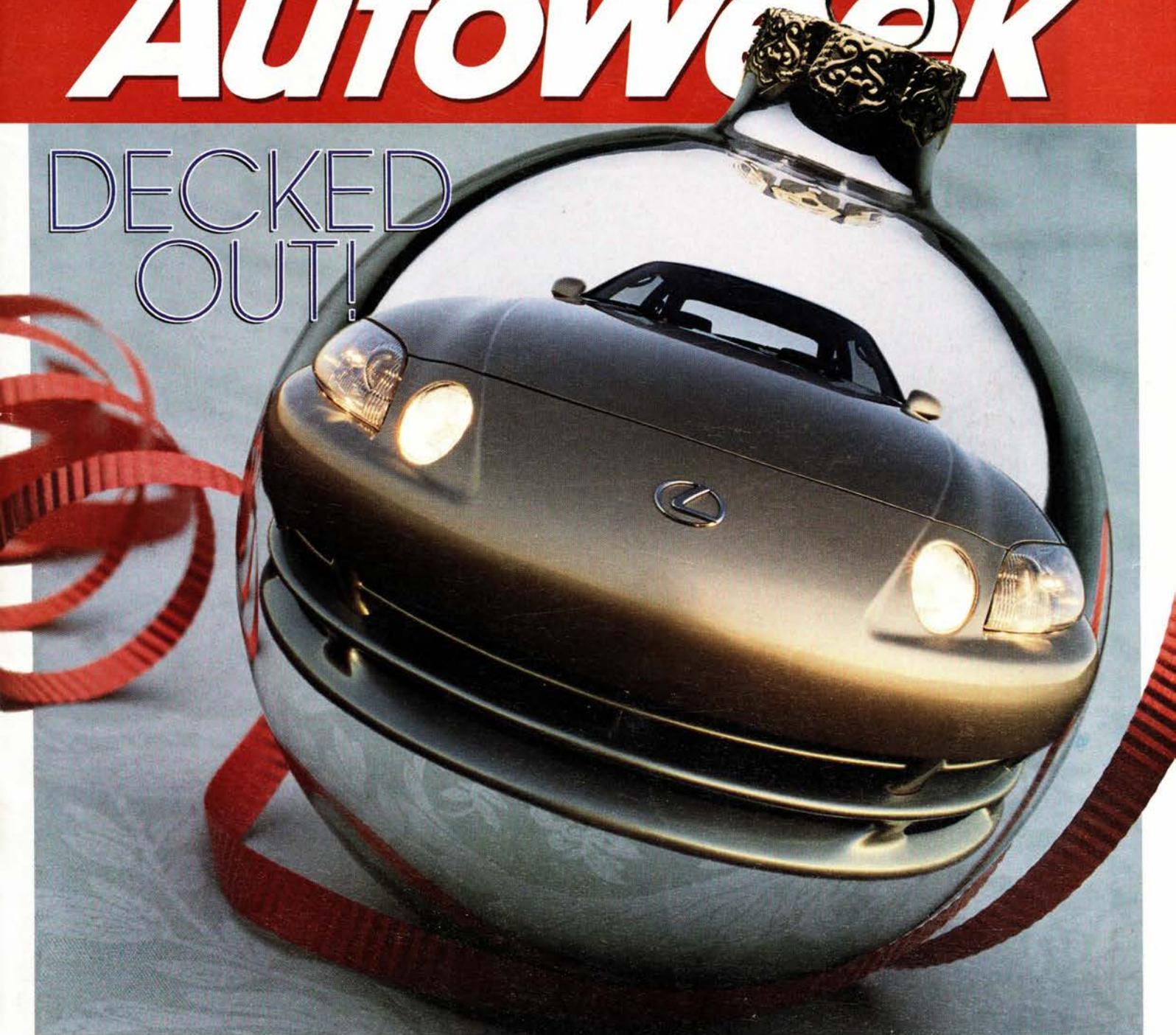


Driving the AC Ace 🏁 London-to-Brighton Run
First Look: Reynard Indycar 🏁 Volvo 850 AutoFILE

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OUT!



SUPERCHARGED
SC300
Reflections on a
new age hot rod

The Hereford was lying as much on its back as its side, four hooves to the wind. There were a few flies around its visible eye and the membrane of its nose. Not even the buzzards had noticed.

There are no rest stops on U.S. 50. That doesn't mean you expect to find an animal carcass 20 feet from the shoulder when you stop to—you know. You don't expect to find a tombstone another 20 yards into the scrub. But it's there, maybe 80 miles east of Fallon, Nev., north from the road's edge. If you feel compelled to pay your respects at a pioneer's grave, you find that the only marking says... 1973.

When you return to the car you realize that you answered the call, paid respects and made your way back without spotting another car as far as you can see. The chill settles suddenly. The low Lexus with oversize spoke rims is all that separates you from total physical isolation, and hot rods don't belong here.

Take your car to a hot rod shop—er, tuner—and it will almost certainly go faster when you get it back. It might even look better. In the traditional scheme it will also be harder to live with. More than likely it will break sooner, and when you least expect it. Drive the traditional hot rod across Nevada on U.S. 50, and *you* could be the cow.

The people at SEMA said they could do almost anything, and we were going to find out. The issue at *AutoWeek* was how.

The Specialty Equipment Manufacturers Association is an umbrella for 2000 tweekers and fabricators and race car builders in every corner of the country. Which car could we give them to challenge their claim, to push the boundary some without punishing our bodies or offending our sensibilities?

An SC300 seemed like a good choice. SEMA insists the aftermarket isn't just 327 Chevy parts anymore, but we're aware of no tuners specializing in Lexus automobiles. Our correspondence tells us there's a shifting demographic in hot rod demand, a group primarily of import drivers who want speed parts for their cars but don't necessarily want to install them themselves.

The SC300 is a damn good car. It's as close to a sporting machine as Lexus gets, and it's available with a manual transmission. We like the SC300, but we wanted to love it. We wanted to love driving it as we love driving a 356 or a ZR-1. We wanted an edge, a little more flash. Most importantly, we wanted it our way, and not like that of every pediatrician or hair dresser looking for a "sexy" car.

So SEMA took the SC300 and chopped and stirred, and after a few months called us to come and get it.

Racetracks are good places to find the troubles in so-called tuner cars—racetracks or hard blasts on the highway for hours on end. During the second acceleration run at the Pomona drag strip, when the SC300 sucked foam-dampening material from its new intercooler toward the intake manifold, the throttle jammed wide open. It wasn't entirely surprising, but it made for long seconds of terror nonetheless.

Never mind that the Lexus finished the track test in fine form once the foam was removed. Approaching the Route 50 cutoff from Interstate 80 near Fernley, Nev., such incidents weigh heavily on the mind. Especially if you have an idea what's in store.

Fernley is where signs first identify U.S. 50 as The Loneliest Road in America (with an exclamation point, like a cheesy postcard). Ini-

tially the signs seem like a joke. There's a car every half-mile at least, and more buildings than you find on the interstate. But a few miles east of town you pass the Fernley Industrial Park, which is a faded wooden sign in a field of sagebrush. The loneliness begins to focus. Thirty miles later the gas station attendant in Fallon says you're lucky you stopped to fill up. By then the signs are no longer funny.

Beyond Fallon, man-made structures are as rare as gas stations on a typical rural interstate. You note the mileage and start searching. In 15 miles all you pass is an abandoned mobile home, though there may have been a shack on the horizon five miles before that. You're in proximity of a handful of military test ranges. Signs warn of low-flying aircraft over long stretches of road, but it's clear the fighters are flying no missions this day. Other signs point down dirt roads to for-



JIM FRENK PHOTO

POTENT PACKAGE

SEMA hops up a Lexus and we take it on a 2500-mile blast in search of hot rodding's future

By J.P. Vettrano

gotten towns like Rawhide or to the Whipperwill and New Pass mines.

The road pounds over alkali beds. Dark, ugly clouds hang over jagged ridge lines, with big holes where the sun drops through and creates the illusion of lakes on the flats. By now it's 20 miles since the last confirmed structure, and you stop keeping track. You pass what proves to be the standard for "historical landmarks" on U.S. 50: a sign in the middle of nowhere recalling an *idea*, or a place where the Pony Express passed. The developed ones have two oil drums for litter.

The Nakamichi finds one crackling country station, and it's Patsy Cline and Hank Williams, not Trisha Yearwood and Garth Brooks.

Loneliness becomes a friend. The desolation is spectacular, and you realize one can travel at supra-legal speeds with virtual impunity.

The SC300 hits an indicated 133 mph, 300 revs short of the limiter, but there is too much bounce to the two-lane to find more. Here 85 mph is slow. An even 95 is comfortable, and you drive with the knowledge that if anyone closes, it's more than likely the law.

You encounter one oncoming state trooper in more than 500 miles, in your lane passing a truck on the wrong side of a double-yellow line.

Concerns about tuner cars have long since faded. At Austin, a mining town carved in mountains in the dead center of Nevada,

highway 50 lifts and drops in a parade of wonderfully smooth sweepers and switchbacks, and the SC300 glows. Like its factory-tuned brethren it is incredibly smooth, but this one is not so reluctant to attack. It is finely balanced and it loves to go fast around corners.

Eureka is the Loneliest Town on the Loneliest Road in America. It has an 1890s opera house, some lovely Victorian buildings and not much else. Ely is the first municipality true to the label since Fallon, with the first full-service, 24-hour gas station in 300 miles. From Ely to the Utah border, 50 runs past Great Basin National Park and through Nevada's most awesome country. Unfortunately the light is fading.

Some 65 miles into Utah you see the first trace of artificial light since darkness settled back in Nevada. Twenty miles further on the light becomes Delta, and you've reached the official terminus of the Loneliest Road in America. You stop for a long drink and ponder the ground effects on the SC300.

A family at the market on Delta's main drag stares, too. It's obvious the Lexus does not belong here. The mother and father are suspicious

but the son, 10 or 11 years old, is enamored.

You think you are witnessing a formative experience. The kid understands. He will know a worthy companion when he sees one.

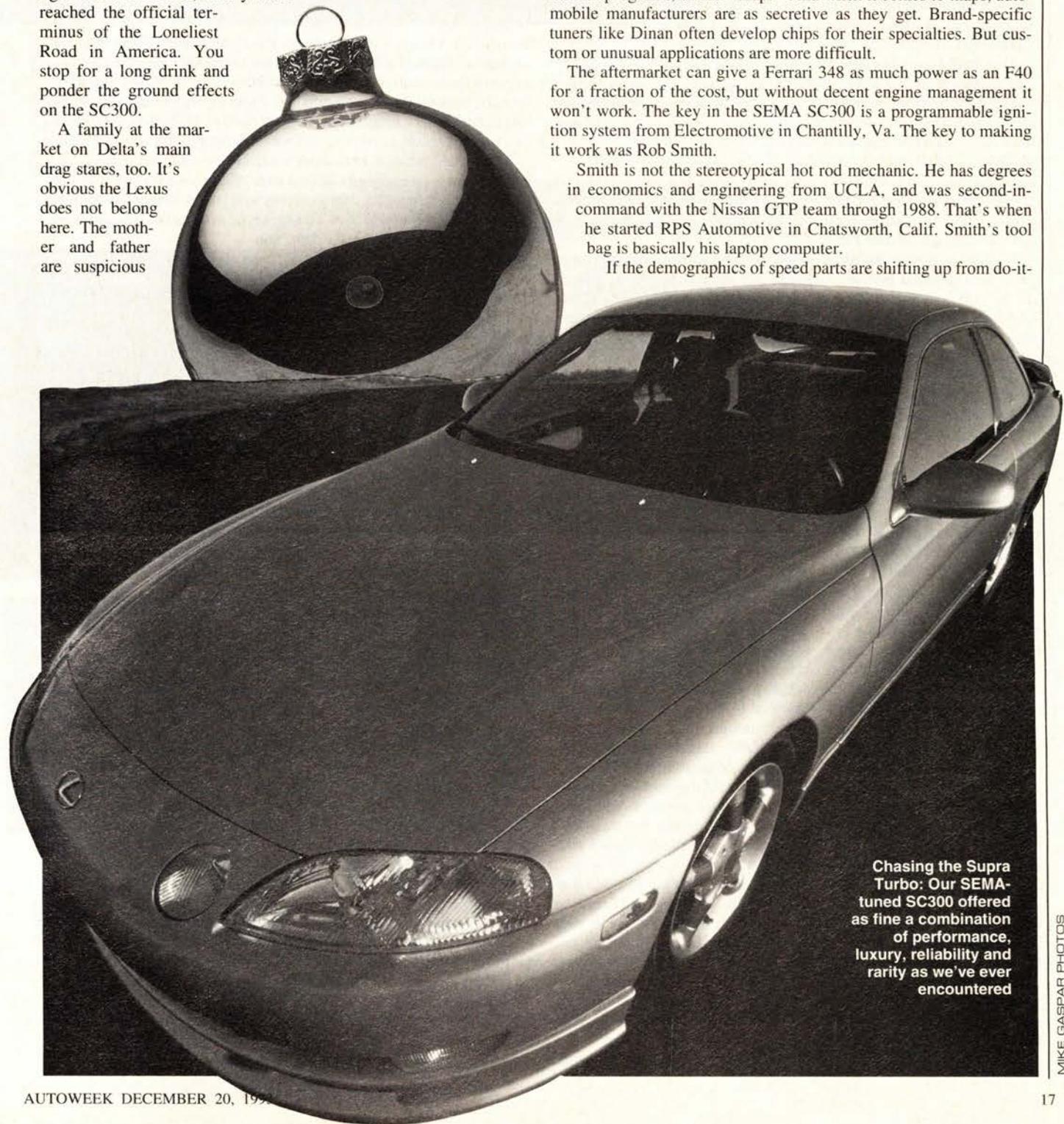
We told them the new Supra Turbo might make a good benchmark, and the people at SEMA went to work. Eleven companies provided components or services (see sidebar). Those components included free-flow exhaust and a Vortech supercharger. Basic bolt-on bits, right? Not exactly.

The SC300's 3.0-liter inline six has a 10.2:1 compression ratio. Open the exhaust and add six or eight pounds of boost and things can get screwy. The key to a modern engine is the ignition and injection control programs, or the "map." And when it comes to maps, automobile manufacturers are as secretive as they get. Brand-specific tuners like Dinan often develop chips for their specialties. But custom or unusual applications are more difficult.

The aftermarket can give a Ferrari 348 as much power as an F40 for a fraction of the cost, but without decent engine management it won't work. The key in the SEMA SC300 is a programmable ignition system from Electromotive in Chantilly, Va. The key to making it work was Rob Smith.

Smith is not the stereotypical hot rod mechanic. He has degrees in economics and engineering from UCLA, and was second-in-command with the Nissan GTP team through 1988. That's when he started RPS Automotive in Chatsworth, Calif. Smith's tool bag is basically his laptop computer.

If the demographics of speed parts are shifting up from do-it-



Chasing the Supra Turbo: Our SEMA-tuned SC300 offered as fine a combination of performance, luxury, reliability and rarity as we've ever encountered

MIKE GASPAR PHOTOS

yourselfers, it may be just as well. Even with a computer, tuning an engine management system is an intuitive process. RPS Automotive also designed and built the SC300's air-to-water intercooler (mildly embarrassed, Smith says the foam the car ingested at the track was a redundant means of controlling vibration of the core). Still, the final tuning was crucial to the car's performance and reliability. By Smith's calculation the engine modifications added 70-75 hp. Standard output is 220 hp (at 6000 rpm, with 210 lb ft of torque at 4800). A net of 295 hp is consistent with gut evaluation. It's also 45 hp more than a V8-powered SC400 and within shouting distance of the benchmark Supra Turbo's 320.

The stock Lexus clutch held up under relentless thrashing at the track. With 0-60 times consistent at 5.8 seconds, the SC300 was fully two seconds quicker than published benchmarks for the stock car and less than three-tenths slower than the Supra Turbo. It could have been even quicker. Smith set the rev limiter at 6250 rpm, or 250 below the factory redline. So dialed, the Lexus demanded an upshift to third at 58 or 59 mph.

With stock brakes the SC required 148 feet to stop from 65 mph. The Supra required 149. With its Eibach/Tokico suspension package the SC300 was a tick *faster* through a 490-foot slalom (43.73 vs. 43.67 mph). It was also faster than an LT1 Corvette, with considerably more room inside to stretch your limbs.

Driving through darkness in the American West, even with good headlights, is driving into a narrow television-screen world, and anything that comes out of the periphery startles you because it doesn't exist until it breaks into the tunnel. The process makes you more tense than does driving in daylight, but it can be more satisfying. There's little traffic and less speed enforcement. Night driving in the West is you and the freight haulers making time, and the only thing you regret is that you might be missing great scenery outside the tunnel.

On I-70 in eastern Utah, violent rain squalls come suddenly, and headlights turn them into an impenetrable wall of white. The Rocky Mountain State must wait for daylight.

In western Colorado the interstate follows the Colorado River Valley, where albino cattle share grazing with bison. Before Glenwood Canyon, where the road is cantilevered from the side of a mountain, the peaks have snow in early October.

Long before northeastern Colorado gives way to Nebraska, the most pronounced feature of the topography is the grain elevators. As the shafts of sunlight fall almost parallel to the plains, it's comforting to know that pickups are the most common vehicles on the highway. They are easy to distinguish from state patrol cruisers.

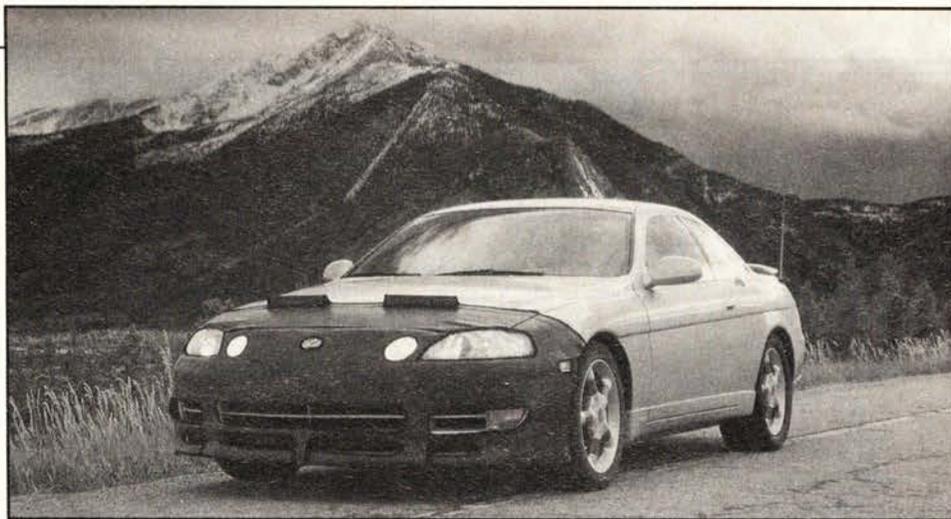
Amidst corn stubble and the smell of cattle near Grand Island is a truck stop that might be the trucker's Mall of America: beds, showers, food, fuel, parts, service and discreet professionals in one spot. If you haven't paid attention, it's surprising to find the truckers' demographic may be changing, too. Many carry cellular phones and fax machines, and pay with American Express.

The young man at the gas island recommends the pork tenderloin. As he admires the Lexus you're struck by the grandeur of a country, its diversity and similarities. The attendant's world looks, smells and feels much different than the world that belongs to the attendant in Fallon, or Ely or Green River. It is flatter, richer and less dusty. But like the kid in Fallon he listens to Guns N' Roses, and wants to know who's going to the World Series.

In Iowa Interstate 80 narrows. The shoulders and runoffs are compressed and the tunnel tightens.

Some contend long hours at the wheel decrease awareness and

They don't make 'em like they used to: Through rain, snow, dust and gloom of night, SEMA Lexus never leaked, sputtered or spit



deaden the senses. Spend time in the right machine and you may argue the opposite. Extended drives are unquestionably the best way to get to know a car, or at least how conducive it is to alert, gratifying travel. The SC300 is very conducive. From an ergonomic perspective it is outstanding. Lights, wipers, speed control, HVAC—all fall within a finger's reach, to be adjusted with minimum effort or distraction.

The SEMA-tuned SC300 is firm, bordering on stiff. The tires feel every bump and pick up every groove, and after 10 hours at the wheel you conclude that this is far better than mush, because you are still in tune with the car and the world outside of it. You are keyed in to traffic, silhouettes and light configurations, even in the dark. You spot the highway patrol in the distance, and in a car like the SEMA-tuned SC300, the highway patrol spots you.

You've plenty of time to slow when you see the Iowa trooper near Adair. For miles you cruise virtually side-by-side, a click below the speed limit, with a gaggle of trucks building behind you. And when the trooper slows near DeSoto and pulls into your rearview, you assume he's getting off the interstate. Until he hits the switch for his light bar.

The trooper says you look very tired at the wheel. But it's dark, and you're fairly certain he's thrown by the California distributor's plate. Your license is clean, but the car's registered to someone else, and



the trooper's not impressed by the *AutoWeek* thing. It's 30 minutes before he's willing to send you on your way. He does so cheerfully, and suggests you find a hotel in Des Moines.

It's simple. You were stopped for driving an aggressive-looking car that did not fit the surroundings, and initially you feel harassed. Then you're happy to be under way again. You decide that if you can't handle the attention, you should drive a more discreet car. You dismiss the entire incident, until the same thing happens in northwest Illinois.

Make a car your home for the better part of five days, track-test it and squeeze 2500 miles into 36 hours of driving, and you get a pretty good handle on the machinery. The SEMA tweaks on the

J. P. VETTRANO PHOTO

JIM FRENK PHOTO

SC300 did pretty much what was intended.

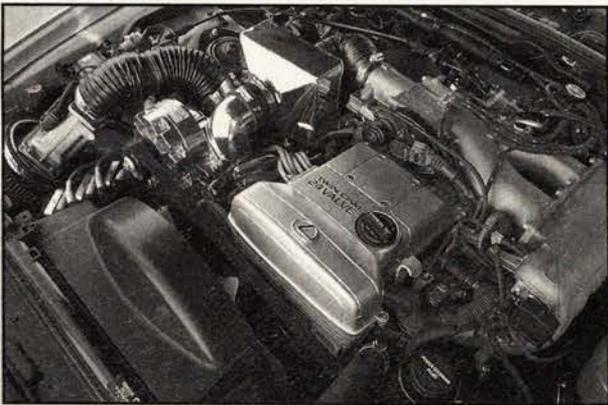
Of course, nothing's perfect—not SEMA, and not even Lexus. From the manufacturer, the SC300 got steering with a little too much boost and a shifter that's less accurate than the SEMA car's power band demands. From SEMA? The modifications dropped average mileage to just below 18 mpg. Yet this is not something someone who orders his or her car tuned like this SC300 is likely to complain about.

The supercharger may be different. By its nature, the Vortech Gearcharger is not a linear device. Boost builds with engine speed. Some love its turbine smoothness and the rush of power in the last few thousand rpm. Others find the power band too narrow. *Lag* is not the appropriate word. It's a question of a geometric increase in thrust with increasing engine speed.

Further, the supercharger keeps pumping air when the engine slows, creating a mild bucking sensation while coasting. A surge valve that vents the unwanted boost lessened the problem considerably, and a slightly larger one could eliminate it.

The point is that final tuning is partly a matter of trial and error, and an owner considering custom modifications should remember that. Finally, with high compression and boost, the SC300 runs at the ragged edge of detonation. Pump gas rated 93 octane is barely sufficient, and anything less drops it on the ping side of the line.

Generally, though, the modifications were painless. The car started easily and ran smoothly in all conditions, and it hiccuped only once (the foam) under steady duress.



Hot rodding a Lexus: '90s-style tweaks not cheap

Key is finding right people

When used in reference to the *AutoWeek* SC300, the acronym SEMA really means Gary Bryson.

Bryson is a partner in Bryson, Cole & Company, an automotive consulting firm in Orange County, Calif. He is neither designer nor engineer. Bryson is a facilitator. He worked many years for Ford Special Vehicle Operations, then managed Jeep's off-road and stadium race teams. He knows where to call for what.

Bryson started by calling Eibach Springs in Irvine. Eibach replaced the stock Lexus coils with progressive-rate springs that lowered the coupe about an inch. Initially the springs are slightly softer than stock, but at full compression they're 30 percent stiffer. Tokico provided Premium Perfor-

mance twin-tube gas-charged shocks. The chassis was finished with Goodyear Eagle ZRs on 17-inch Momo rims (235/45 front, 275/40 rear).

Engine enhancements began with a custom aluminized steel exhaust system from Gold Rush in Yorba Linda (the deep howl is one of the SC300's most pleasurable attributes). A Vortech "Gearcharger" internally driven centrifugal supercharger was installed by Nelson Superchargers of L.A.

The HPV-3 programmable direct ignition system came from Electromotive in Chantilly, Va. RPS Automotive in Chantilly, Calif., fabricated the air-to-water intercooler and handled final tuning.

With the engine mods, the SC300 would

Most importantly, the tuning left what's best in a Lexus and addressed what enthusiasts complain about most. It turned a mildly entertaining coupe into one that roars, and one that acquires itself admirably with cars a standard SC300 should avoid at all cost.

Lets go back to that benchmark Supra, and say for the sake of argument that performance is a wash. Add the modifications to a new SC300, and your costs may total a couple large more than the sticker on a Supra Turbo. And no matter how fine the conversions work, it's not likely to be bulletproof like a factory Toyota.

So what's the point?

Having it your way, man.

If you love cars, you are lucky. The market has developed to give you what you want. It could be better, but it's been a hell of a lot worse. If you live in the United States, you have the best choice of automobiles in the world and the best country to drive them in.

There is more history and gentility and "culture" in Europe? Perhaps, but there is no more adventure, and much less room. There's something to be said for roads without speed limits, but the autobahns are squeezed tighter every day, and the idea of limitless driving is more legend than reality. There are places in the States where people routinely go as fast with as little worry.

And you don't even have to try that hard.

For a car, you need only decent taste and a reasonable idea of what you want. For adventure, just pick a direction and drive.

Merry Christmas. ■

Eleven companies supplied the parts and expertise that turned our Lexus SC300 into a one-of-a-kind road blaster

pass a so-called "sniff test" in any state. That doesn't necessarily mean the mods are legal in all states. Vortech and Electromotive parts have exemptions for use on specific models in California, but these don't apply to the Lexus.

For appearance, Kaminari of Aliso Viejo installed a full urethane body kit. And for protection against the pitfalls (or pitting) of cross-country travel, Colgan Manufacturing of Fountain Valley tailored a custom-fit front-end mask.

The tab for all these goodies? About \$9,000 would get you there (of course, it would also get you a new Tercel four-speed). The SC300 retails for \$38,000, or maybe \$28,000 for a used '92. No one said good, clean fun was cheap. ■