

# WHAT FORD MEANS BY "RACING INTO THE FUTURE"

**M**aster switch—on. Ignition switch—hot. Fuel pumps—on. Depress starter button—*whinne*, stop. Crack throttle half open, try again. Depress starter button—*whinnne, rappa, rappa!* The 305-cubic-inch Ford small-block lights off with a bark, all 550 hp on tap.

A quick glance at the gauges. Oil pressure—65 psi indicated. Fuel pressure—steady and holding at six psi. Crack the throttle, an instant 3500 rpm quickly returns to a 1200rpm idle. Flick on the differential and transmission oil cooler fans. Turn on the water-cooled disc brake pumps and crack the throttle one last time, then push the small machined aluminum gear selector lever toward first. You've just cocked the trigger on a 2600-pound 185mph

By Rick Titus

Trans-Am weapon, and you're about to go for the ride of your life.

The weapon in question is Tom Gloy's Trans-Am racing Capri. The ride is around Northern California's Sears Point International Raceway, and this is a track test to compare 20 years of Ford racing history, a hands-on look to find out what Ford has learned from "racing into the future."

The players in our ponycar comparison were to be a '66 Mustang Trans-Am racer versus its '66 street counterpart, and the '86 Gloy Mustang T-A matched bit for bit to its '86 street sibling.

Little of the Mustang's history is well served by drawing comparisons to any

of the mid- or late-Seventies cars. Ford engineers took off on some less-than-thoroughbred tangents in the Seventies, producing a Mustang product that showed a minimum of its racing heritage. The good news is, the Mustang is back on track, and the current car reflects it.

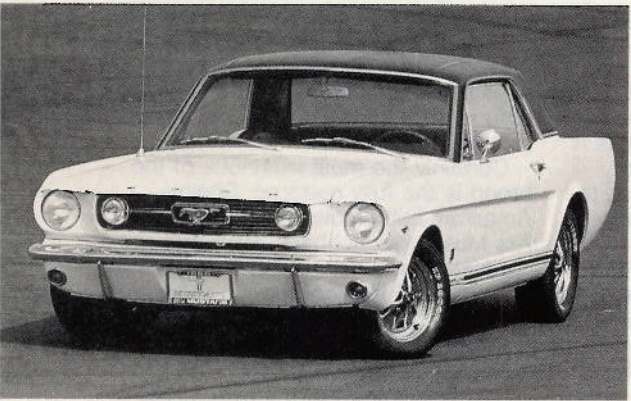
Certainly the most illustrious of the brood is the fully restored, Shelby-American-built, factory-sold '66 Trans-Am Mustang notchback. Rich with racing history and now in the loving hands of owner Bill Hanlon, the '66 racer was recently completely restored by Cliff Carbonie and John Vorinegut of C&J Automotive in San Leandro, California. Every detail, short of mufflers, radial tires and rear license plate, is as it was when it raced back in 1966-'67. It sold

# 20 Years Of The Mustang

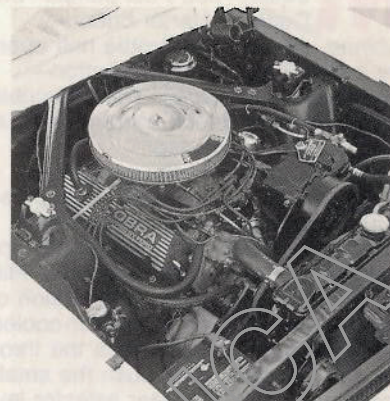
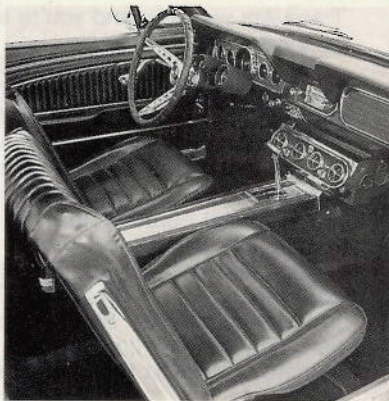
PHOTOGRAPHY: JIM BROWN



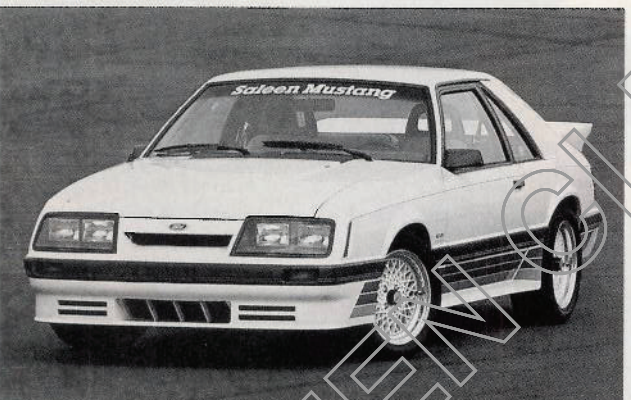
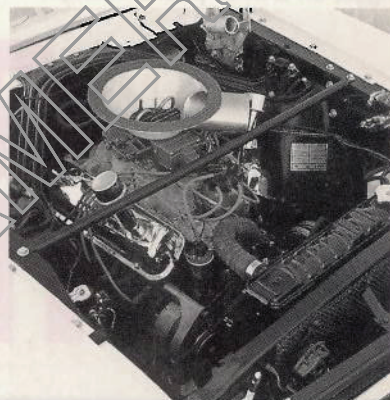
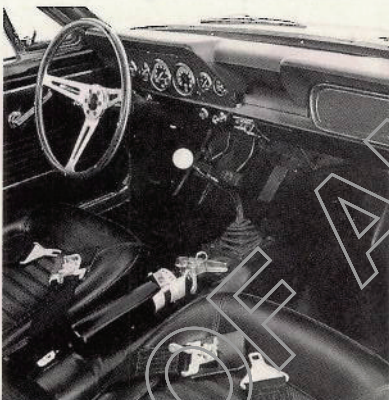
# 20 Years



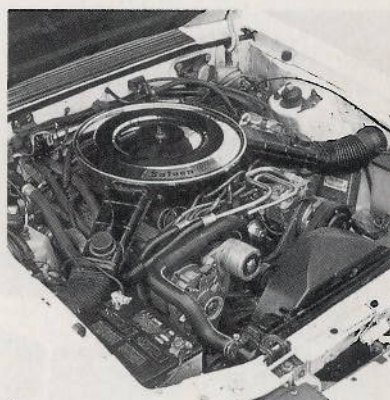
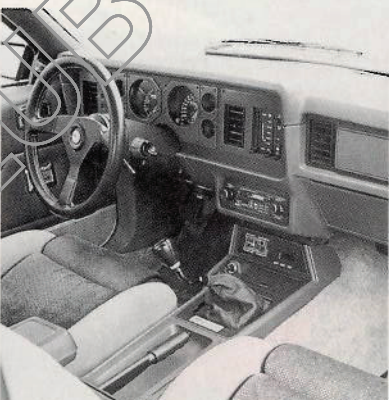
*This '66 street-stock Mustang GT has a standard high-performance 289 V8 and an automatic transmission.*



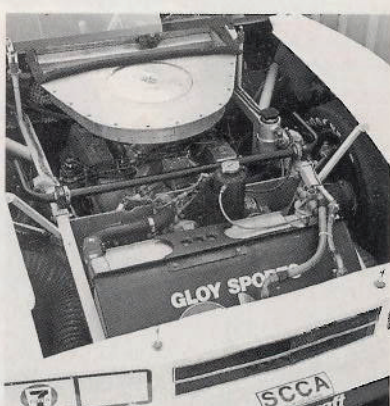
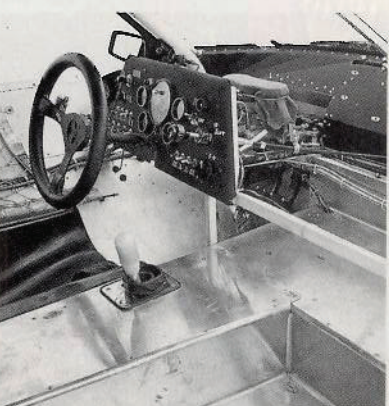
*Shelby-American-built '66 Trans-Am racer uses a factory-tuned race engine and four-speed transmission.*



*The '86 Saleen Mustang is fitted with a pre-fuel injection four-barrel-feed 302 V8 and five-speed manual trans.*



*Gloy Sports-built '86 Trans-Am Capri/Mustang possesses a 305 V8 Ford engine and five-speed manual trans.*



# 20 Years

With a new sense of reality, we belted ourselves into the Shelby-built '66 Trans-Am racer. Shelby-American won the Trans-Am series for Ford Motor Company in 1966 and 1967. Using the chassis and engine experience gained by winning the 1965 B-production title with a fastback Shelby GT350 Mustang, the Shelby crew bolted together only 16 of these factory-backed Trans-Am cars. The tweaks must have worked, because the little notchbacks were quick right out of the box.

Just sitting in the early racer points out how times have changed, try as we do to forget. Stock seats, headliner, door panels and, in most of the Shelby-built racers, even the original carpet stayed. Stock instruments were removed; tach, speedo, oil pressure, water temp, oil temp and fuel level gauges were added. The Sports Car Club of America required seat belts, a fire bottle and a single-hoop rollbar with rear bracing. Beyond that, a 22-gallon gas tank, Koni shocks, an optional rear anti-rollbar, stiffer springs, a Detroit Locker third member rearend, relocated front upper control arms and a factory-prepped race engine completed the package. This was a fully legal, factory-built Trans-Am racer, all for under \$7000. Yeah, we'd say things have changed; seven grand today doesn't buy you the trailer to carry it on.

Twenty years is a long time, but somehow, just for a second, it didn't matter, as we pulled the early Shelby T-A car onto the track, its 750cfm Holley feed, 325-horse, 289-cubic-inch V8 pulling for the stars. Simple to the point of basic, the little notchback still had some history coursing through its veins.

When you talk to owner Bill Hanlon, you see passion in his eyes. This vintage racer means a great deal more to the man than just freshly painted sheetmetal. Two laps behind the wheel, and you know why. Nearly crude by today's standards, the early T-A car, firm-footed on its current radial

tires, which in all likelihood are better than its original race rubber, points in well and, with just the right amount of throttle, takes a corner set, nails the apex and power slides off the turn. In terms of speed and pavement used compared to today's racers, the early car is slower, and is willing to use parts of the track they haven't paved yet; long slides setting up for a turn, even longer slides leaving it. Tail-out departures on lower-speed corners leave the rear tires fighting for some bite, all the while the crisp 289 singing at full song.

The brakes (disc front, drum rear) slow the car at only a fair rate, but they resist fade better than expected. Some slight pull left to right and back again under hard braking was evident. The rearend is sensitive to throttle input, as the Detroit Locker differential kicks in and out, inducing loads of either over or understeer. Steering response is slow, but there's more feedback than in the street car. Correctional lock, found necessary on several occasions, is slow to induce, but the car responds well to tail-out, "power on" cornering.

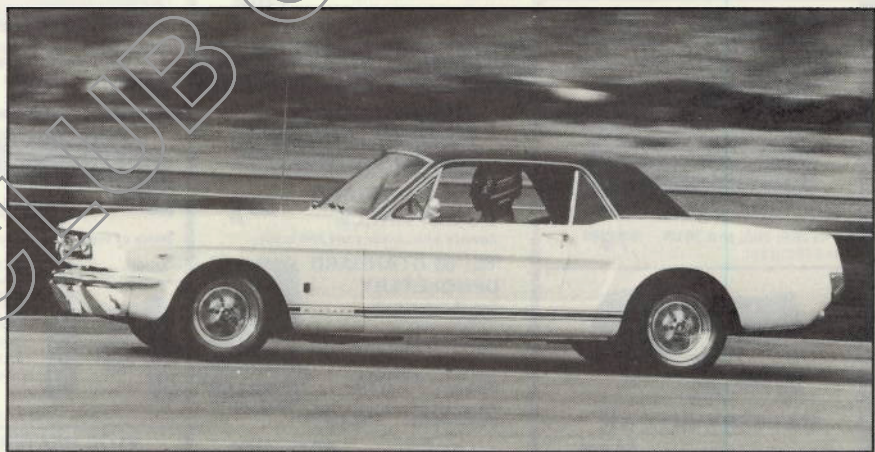
The '66 Trans-Am racer was a dramatic improvement over the street car. Power, of course, makes any car (or nearly any car) easier to drive. Race

cars of 20 years ago used stock rubber suspension bushings. Rollbars were only for driver protection, and weren't built as sub-chassis, resulting in a great deal of chassis and suspension distortion. Therefore, the car becomes harder to predict, as well as harder to set up for a corner. Flex, as it winds itself up through the chassis, changes the static suspension geometry, in turn affecting a car's cornering ability.

In short, it was a 20-year-old racer, more a very fast street car than a race car. It shared with its street counterpart compromised suspension plotting, poor platform rigidity, and not nearly enough stopping power. No way would it be competitive today, but it was one hell of a racer back then.

Next to stretch its legs on the track was the Saleen, an upgraded street version of the Ford Mustang GT. We think it's the best Mustang, if not pony-car, a person can buy. Its revised aerodynamics are a direct result of lessons learned from racing. The rear wing is effective at increasing the downforce to the rear of the car and improving its straight-line speed. The nose spoiler and side skirts control high-pressure air in and around the car.

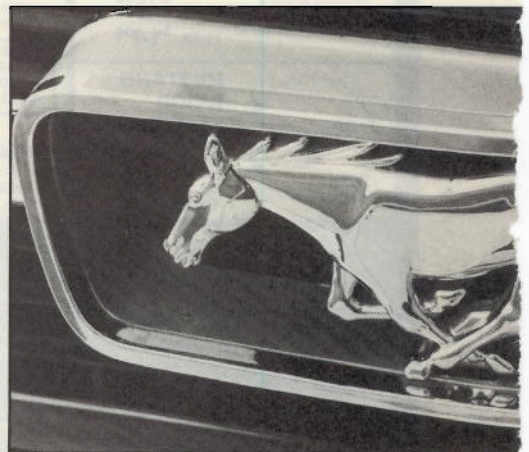
On the track, the Saleen feels right at home. Its 50-series hi-po General radials, Koni shocks and stiffer suspension bushings keep it securely planted on the surface. Light, responsive power



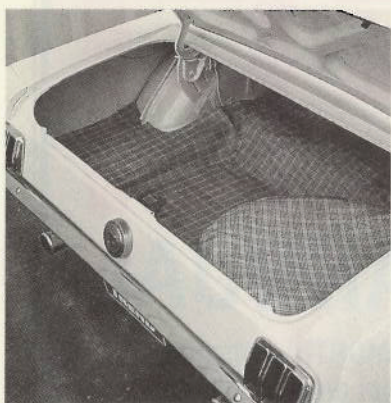
'66 Street-stock Mustang GT



'66 Shelby-American-built Trans-Am Racer



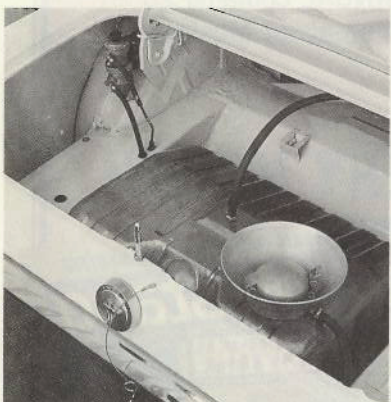
# 20 Years



'66 Street-stock Mustang GT



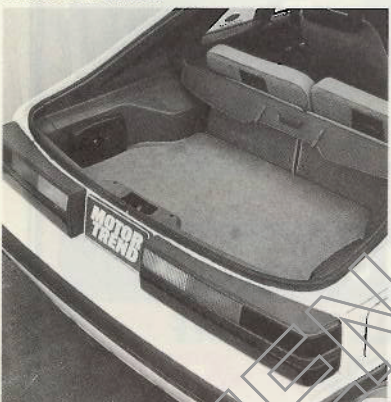
*Tiny by today's standards, the trunk housed the spare tire, jack and tool kit. Dave Ernst's stock '66 GT is restored right down to the original vinyl top.*



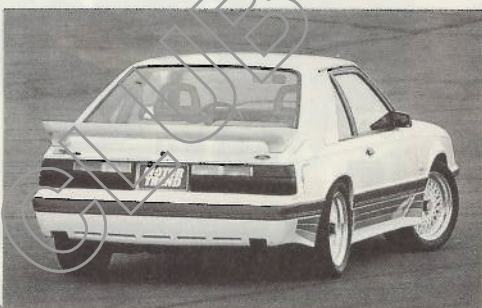
'66 Shelby-American-bull Trans-Am Racer



*Shelby-American-bull Trans-Am racer was stripped and now carries 32 gallons of fuel, its battery and fuel pumps in the trunk. Bill Hanlon's restored car races today in vintage events, running the same number as it did in 1966.*



'86 Saleen Mustang



*The '86 Saleen is clean, crisp and to the point—a refined touring version of the Ford Mustang GT. Aero package, serial number and extreme detail to suspension tuning make the Saleen Mustang a value to ponycar buyers.*



'86 Gloy Trans-Am Capri/Mustang



*Gloy Sports Trans-Am car runs on 32 gallons of fuel, as rear end coolers, roll-over tubes and dry-sump oil storage take up the rest of the trunk. Rear wing is useful at 185mph top speed.*

new, as a Shelby-prepared race car, for only \$6414. Today, in its current trim, it is valued at \$40,000.

To represent the '66 street car, we were lucky enough to come across Dave Ernst's '66 notchback GT. Ernst, who lives in Northern California, has added a few details to his own liking, but has done nothing to alter the car's performance.

For the present-day Mustangs, we wanted what we felt would best display the growth of Ford's ponycars. The optimum came down to two. From the race side, Gloy's Trans-Am Capri is technically not a Mustang in body (something a flat-bladed screwdriver and fiberglass Mustang panels would fix in three minutes), but we were content to call it a Mustang. Its heart is the famed 302-cubic-inch small-block engine that Ford sells in the Mustang, and its development data will affect Mustangs of the future.

For the '86 street version, we chose a Saleen Mustang (Saleen Autosport, 313 N. Lake St., Burbank, CA 91502, 213/849-1017). Steve Saleen—much like Carroll Shelby in the 1960s—has a close working relationship with Ford Motor Company, the result of which is one of the trickiest ponycars going. Saleen has a national distribution program set up with select Ford dealers and two central conversion centers that build (or should we say, transform) baseline Mustang V8s into some of America's best Grand Touring coupes.

With the hardware in order and our still photography out of the way, we took to the track. First on our test list was Ernst's '66 GT street car. This Mustang is a hi-po 289 fitted with a C4 automatic. Optional GT wheels are mounted with General 60-series high-performance radials. Aftermarket Cobra-style valve covers, the original GT gauge package, air and a steering wheel cover are the only modifications.

Once on the course, the little GT served as a stark reminder of how far we've come. Even though it is smooth, easy and quiet, the older Mustang is just no match for today's cars. Although a performance platform by 1966 standards, it has more body roll, more understeer, less braking power and far slower steering than we had remembered. There was hardly any meaningful steering feedback, as the stock '66 GT slowly pointed into a corner, its front end protesting the input with vague response and unrecoverable understeer.

The early Mustang pulled well down the short straights at Sears Point, but was lacking in brake power needed to haul America's mid-Sixties sweetheart down. It was, quite frankly, a bit of a shock.

Though it seems dated now, the '66 Mustang GT was a watershed car. One of this country's earliest attempts at unit-body construction, it was the car that started American buyers thinking small, at least in comparison to the more popular battlewagons of the time.

steering briskly points the Saleen Mustang into a corner, as its five-link rear suspension and modified MacPherson strut front suspension sets the car firmly, and permits rapid power input to the rear wheels. The 210hp, 302-cubic-inch Ford small-block (yes, a derivative of the original 289) uses its broad powerband to draw the car off corners. Steering feedback is precise, and the brakes (still disc front/drum rear) are far more effectively power-assisted, slowing the stiffer-platform street car much easier than the early racer could have ever hoped.

The current platform is easier to drive because less physical effort is required from the driver. The seats support better, and all the controls are simpler to use. The gear lever moves smoother, the brake pedal lighter, yet more informative. The whole car responds faster to every input, running lap times equal to the earlier racer, yet, in full street trim, it's more reassuring while doing so.

The Mustang GT, Ford's pride and joy, has profited in better unit-body construction, improved suspension travel and more control of alignment geometry. The result is a more stable platform.

Finally, it was time to step into the future, the very place Ford has been racing to for 20 years. The '86 racing Gloy Trans-Am pulls out on the track, a bit bulky at first, a tool for speed, not

for running around in the pit area. With each upshift, the car grows calmer as the chassis comes up to operating speed. The interior is a mass of steel tubing and aluminum panels. You feel every component in the car. The trans draws each gear cleanly with great ease. The throttle, with its super short throw, pulls more volume from the engine bay, and with it, speed! The car settles as the huge tires heat, and the weapon is ready for war.

The tables have turned, as you, the driver are no longer faster than the car. In fact, the car is now *much* faster than you. Your brain struggles to keep up. Cornering speeds are double what the earlier cars could do. The brakes are so effective, slowing the car becomes an act of violence, as the forces try to pull you forward, out through the safety belts.

Once back on the power, the car shoots to the next corner, the track's surface in front of you looking more and more like a video game. Your role as driver has changed. You must merely guide this missile, no manhandling, no rash moves, as this car senses your inputs before you make them.

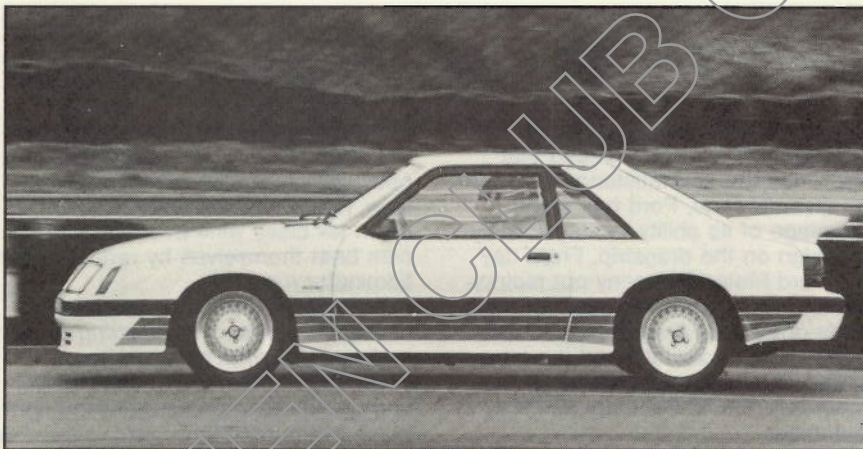
At first, the whole experience is a contradiction. The car is easy to drive, as its state-of-the-art technology does much of the work for you, and, yet, it's much harder to drive to its limits than the earlier cars, as it places new, far greater demands on your ability to con-

centrate. Thought becomes action, and motion becomes fluid. It is, at first, a frightening experience. One bobble serves to remind you of the gravity of a mistake. One lagging thought puts you well behind this car.

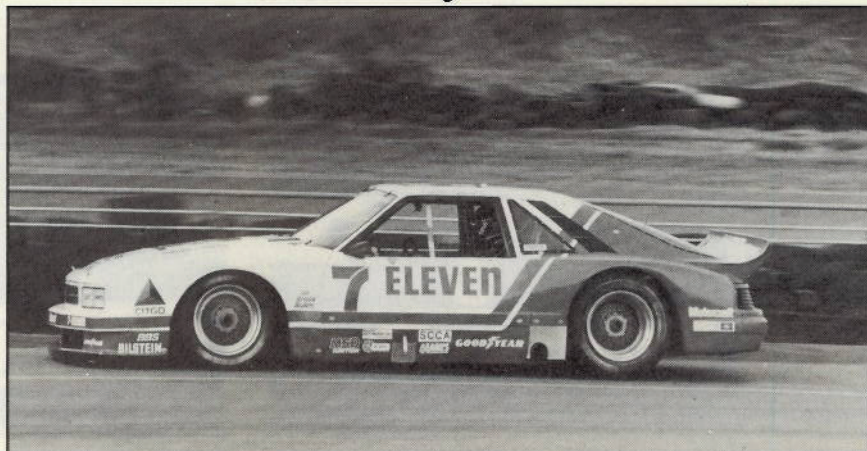
The Gloy Trans-Am racer runs just over 20 seconds a lap quicker than the early Shelby-built car. Most racers agree that the sport develops at the rate of improvement of one second a year. The older Mustang used its production unit-body and chassis as its racing frame. The Gloy car is an all-steel tube structure with far greater torsional rigidity than the original Mustang made all the more necessary given the higher cornering loads placed on the current T-A car. Its front tires are 10 inches wider, its rears a full 15 inches wider than the older car. The brakes, water-cooled four-wheel discs, measure nearly twice as large as the '66 car's front discs. The engine sits lower and farther back in the frame; the transmission is a five-speed, versus the four-speed box in the Shelby car. The Gloy car sits a full 12 inches lower and 16 inches wider than the first Trans-Am Mustang. The driver can adjust, while racing, the current Trans-Am car's front and rear anti-rollbar setting. The crew and driver can talk by radio to determine if they need to make spring-rate changes to the suspension. Aerospace plastic here, light alloy metals there, and on and on. It would be quicker to list what they share: the engine.

Is the technology too much? Does it go too far? Not on your life. We catch up, we grow, we learn to demand more. To the drivers who race these machines, they're a tool, another bridge in the development of something better. They've learned to be faster than the car, forcing a new "cutting edge."

It was a difficult day in some ways. Driving fond memories from the past, taking pride in the present, and, yet, being forced to face the future. It was a fantastic reminder of the fleeting nature of "state-of-the-art." Growth, development, and progress; these are, unquestionably, the things from which automotive dreams are made. *M*



'86 Saleen Mustang



'86 Gloy Trans-Am Capri/Mustang

