## **Classic Cars**

## Vintage 1965 - 1970 Shelby Mustangs



HotRod Magazine's "Shelby GLHS Whips GT350" Article

## From HotRod Magazine:

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So you thought Carroll Shelby was out of it, reduced to the second-fiddle role of keeping all the performance car promises Lee Iaccoca was making about Chrysler products. Perhaps you even figured the Ol' Master was talking out of the side of his mouth when he spoke (HRM June '85) of low-cost, four-cylinder front-wheel-drive mini cars that can go out and beat up on the big stuff. Well, don't feel bad, so did we. Till Now.

Carroll Shelby is back, and he's just fired the first bullet in his battle with the performance car world--the Shelby GLHS. Seems Shelby is setting up shop again. It's back in the trenches for the man who's been busy consulting with Chrysler Corporation for the past three years. Though his plans haven't changed on that score, he'll still be developing hardware for the "Dodge Boys," and now he intends to build cars the bean counters won't let Iacocca make.

If there's one question Shelby dislikes hearing about his new activity, it's: "Will it be like the good old days?" Without our ever asking, Shelby made it perfectly clear that the new Shelby Automobiles, Inc. won't be building any 427 Cobras, GT350's, or GT500 Mustangs. "We'll be building today's cars...you boys had better learn to deal with that fact." And just to prove it, we let Shelby lead us like sheep to slaughter at a track test setup to preview the new Shelby-version Omni Turbo GLHS.

Using Willow springs International Raceway as their introduction location the Shelby group put the automotive press in a standard 1986 Omni GLH Tubo for a comparison baseline. Content to be impressed with the car's lap times (the current model is not weak-wristed), we took the bait --hook, line, and sinker.

The mile-wide grins dominating the faces of the Shelby PR people should have told us something as they strapped us in the shiny black GLHS. By the end of the pit straight, the gig was up. By the entrance to Turn One, so was our heart rate. Quicker? Quicker doesn't even come close. By Turn Two (a sweeping, slightly uphill right hander), a corner we had been entering flat-out in the standard GLH, we now arrived going so much quicker we had to lift and tap the brakes. Yes folks, this puppy is

definitely quicker. Lots quicker.

And it's quicker everywhere! On the straights, in the turns, everywhere. It took us three laps just to catch up to the thing, but by three more we were comfortable and having at it. The car pulls down the straight like a strong V8, and it works in a corner like some of the best set-up, conventional rear-drive performance platforms. If it showed us any weakness, it was the brakes. The darn thing can just plain be driven harder than its brakes can stop it. One of our return trips to the pits was made all the more spectacular by a front-disc brake fire. A point was made in the GLHS's favor, given that the stock pads were brand-new and not properly burnished for this kind of use. But who could resist driving the little monster this hard? Not us.

After the initial shock wore off we started to better appreciate just what a watershed car this is. For starters, it was all the things Shelby had been telling us it could be--a low cost(about \$11,000), front-wheel-drive (because that's what Chrysler is manufacturing today), four-cylinder (mileage and economy still call the shots), turbocharged (because some folks still want to enjoy driving a car) little car (because today it's required to make better use of space and materials). In short, it has all the earmarks of a "today" car, not those of the mid-Sixties.

To further prove the point, we pitted the Shelby of "today" against the Shelby of "the good old days." We brought to the test a 1965 Shelby GT350 Mustang. A watershed car in its own time, it would now stand toe-to-toe with the future and slug it out; a no-holds-barred contest for technical supremacy. A fair fight? Not really. By our perspective the GT350 was playing with a stacked deck, but what better way to make Shelby prove his point?

The car we used belongs to Shelby American Automobile Club member Phil Schmit. Schmit's not a rookie to Shelby products. He not only restored his own GT350, but his 427 Cobra as well, both of which he drives in SAAC track events Considered by his fellow club members to be a quick Shelby driver, Schmit was chosen to champion "the good ol' days."

The two cars took to the track looking as mis-matched as David and Goliath. It was a growling V8 against a muffled, straight four--a fat rubbered, rear-drive, 3000-pound musclecar versus a gumballed, front-drive, 2300-pound shoebox. Surely Shelby was starting to sweat. The contest came to speed in a hurry, as the GLHS took off in an effort to stretch an advantage, with the GT350 in hot pursuit. The gap opened to about 10 car lengths, where it remained for three rapid laps. Much to our amazement, the GT350 showed no significant advantage anywhere on the course. It reeled in a few car lengths at the exit of the low-speed corners, but was held at bay down the remaining straights. The GLHS had slightly higher corner entrance speeds and was able to pull out a few lengths in the really tight stuff.

The cornering performance of the GLHS surprised us, and why not? The GT350 Shelby Mustang had won on race courses over the country in the mid-Sixties (we might add, against Corvettes, Cobras, and Jags), yet the way the GLHS held the Mustang off down the long straights really blew our minds. Both cars recorded 125 mph at the exit of the back straight.

Feeling a wealth of confidence, we backed off the throttle in the GLHS, letting it charge about 10 car lengths ahead. With both cars back up to speed, another three-lap ding-dong developed: this time the GLHS closed up. By mid-point of the second lap the GLHS was on the trunk of the GT350. To pass it would serve no point. The cars returned to the pits together. Shelby beamed.

On paper this whipping should not have happened. The GT350--with Schmit's admittedly "smiled on" motor putting out about 350 horsepower, its high-powered cornering ability, its large disk brakes and Detroit locker rear-end--should have put it to the shoebox with shark's teeth.

Bewildered, Schmit, along with the rest of us, put the obvious question to Shelby. How? He calmly explained that it was a matter of "...efficiency. For three years now my guys have been playing with engines. You konw, heads, pistons, turbos, superchargers, the whole range, just looking for ways to make that 2.2-liter engine think it's a 5-liter V8. Turbos, which I've been telling you guys for years, are the only way to go in a small-displacement vehicle." Shelby goes on: "Scott Harvey heads our engineering team, and he's had Neil Hannemann developing the chassis, while the engine team--Jerry Mallicoat and Jim Broske--worked with our electronics engineer, Alex Koral to really make the power we needed. Engine detail changes for the GLHS include an air-to-air intercooler that cools the compressed air by as much as 100 degrees F, allowing more of it to be forced into the combustion chamber. As a result, the turbocharger's boost can be bumped up to 12psi, as compared to the standard GLH's maximum of 9psi. A tuned multi-point fuel-injection manifold, with longer intake runners, help improve the distribution of the fuel/air mixture. All this adds up to a 30-horsepower increase and a broader powerband to 175 ft.-lbs. at 4600 rpm. The durability homework was done by the Powerplant Engineering group and the Special Vehicles team back in Highland Park, Michigan."

Shelby brags that the car was designed as a package. "Steve Hope, who, like Harvey, has been a racer for years, put it all together. Chassis, engine, electronics, everything. To make this little monster effective, as a real world car that a young couple could afford to buy, but would enjoy gettin' out in. Turned out it could blow the doors off cars that cost four or five times as much."

Its quarter-mile times do nothing to discount Shelby's statement. Passes at 14.7 @ 94 mph make the GLHS one of the 10 fastest production turbo cars in the world. Its 0 to 50 time of 4.57 seconds makes it a real stoplight racer and puts nearly every other car in danger of a short-race whipping. On the skidpad, where the car's lateral acceleration is measured, it pulled an amazing .88g. It's a fighter of the pocket-rocket variety, no doubt about it.

As for progress, Shelby's benchmark of 20 years ago ran 15.7 @ 91 mph in the quarter, with 0 to 60 times of 7 seconds (see Motor Trend and Sports Car Graphic, May '65)--in its day a very hot machine. But Shelby is quick to add, "I would have been sorely disappointed if I hadn't been able to build a faster, more efficient car today. It's a sign of the times." Shelby goes on to say, "It's a lot of little car for the money. We're givin' it Koni adjustable gas shocks, our new 15x6 Centurion cast wheels with Goodyear 205/50/15VR Eagle Gatorbacks, a 175-hp turbocharged, intercooled engine, a special gauge group with some real information on it, and rollbar and oil cooler option for the guys who might want to go race the damn thing."

Current production plans call for only 500 of the black demons to be built. Assigned a Shelby serial number, they shouldn't be in the dealer's showroom for long. First production versions are due to roll of the new Shelby Automobile, Inc. assembly lines in mid-March. When pressed about expanding the production numbers, Shelby replied that "If the demand is that great, we'd take a look at it."

Shelby Automobiles, Inc. is going to be a small production car group building specialty cars aimed at a narrow market segment. Shelby's goal is to build cars that will focus on the current tehenology and take advantage of the engineering breakthroughs that continue to take place. "We'll be able to respond quickly to the latest thinking," says Shelby. "Our group is already developing hardware for the Lancer and Daytona. We've go some slick stuff coming down the pike for you."

Seems the Ol' Master wasn't talking out the side of his mouth these last few years. Shelby has made his point, and he plans to keep on making it. It might not be like the good old days, but it's sure to be as interesting.

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