

Modern Muscle

Mat



Two legendary names face off in a 21st century shootout

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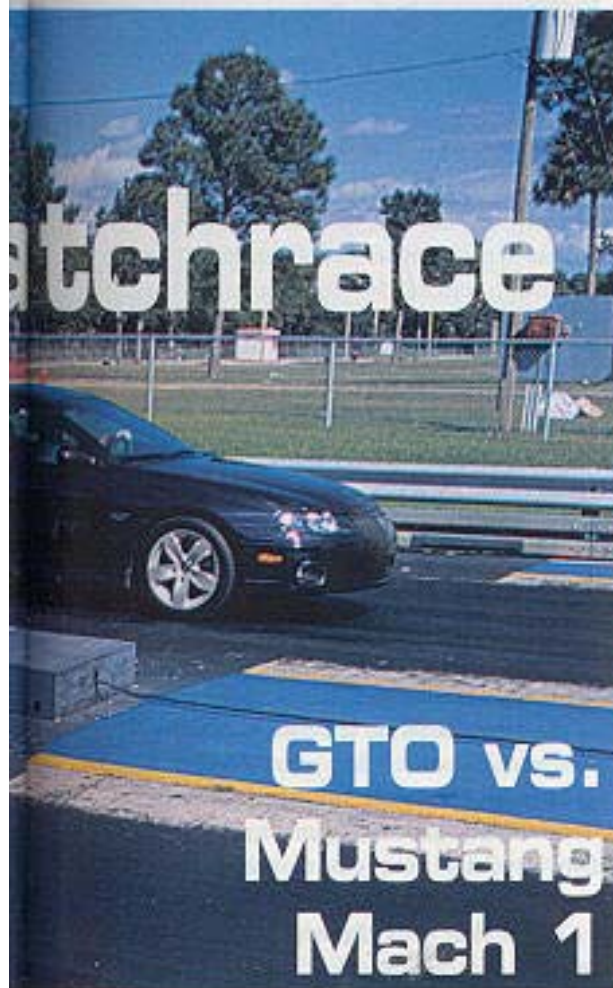
THE PREMISE WAS SIMPLE. HOW DOES THE 2004 GTO STACK UP AGAINST THE ONLY REMAINING AMERICAN V-8 RWD HIGH PERFORMANCE CAR, THE MUSTANG? WITH THE DEMISE OF THE TRANS AM AND THE Z28, FORD'S MUSCLECAR HAS BECOME THE BENCHMARK OF MODERN STREET PERFORMANCE. IF YOU'VE EVER DRIVEN AN F-CAR, YOU KNOW WHAT IT FEELS LIKE TO BE CHALLENGED BY HORDES OF RABID MUSTANG DRIVERS.

To find out, we requested a 2004 Mach 1 Mustang from Ford to pit against the 2004 GTO. The Mach 1 retails at just over \$30k with

options, while Pontiac has not yet announced the GTO's price (it's expected to be in the \$33k range). In terms of luxury and options, the loaded GTO is a complete package. The only choices buyers have are transmission and color. The Mustang is also well dressed out, with excellent gauge placement, but we were disappointed in the seats and a balky shifter.

Musclecars are visceral, and both cars look muscular. The Mach 1's shaker hood really works and there's plenty of heritage in the car's styling. And, like a true Sixties musclecar, the Mach 1 is a brute, although it does possess more polish in ride and handling than its namesake.





Macho Mach 1

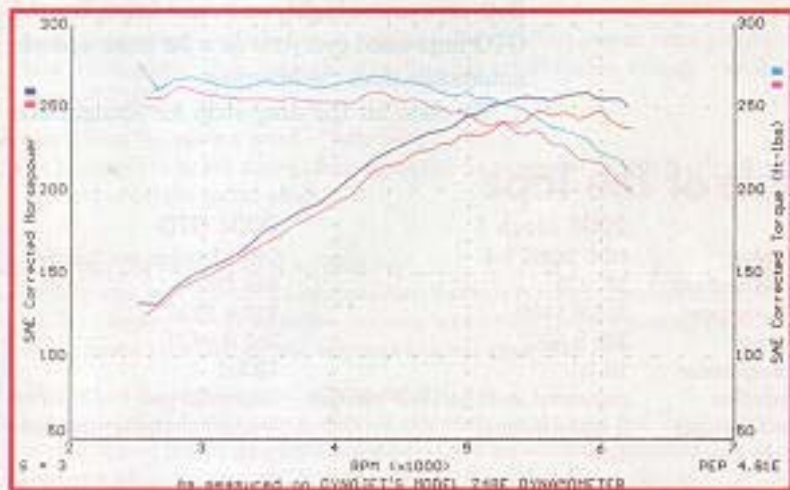
We can't go without praising the 2004 Mustang Mach 1 that went mano a mano against the GTO. Ford went out of their way to deliver a Mach 1 from DC to Orlando for us, and no matter how hard we beat on the Mustang, it just came back for more. To illustrate just how stout this pony is, while the GTO needed to be iced down and its computer unplugged and tire pressure dropped, the only thing we did to the Mustang was check the oil.

While the match up looked like a slam-dunk for the GTO, the Mustang wasn't the laydown some thought it to be. With 281 cubic inches and 305 hp (dyno tests of the 2003 Mach 1 show it's more like 320 hp at the flywheel and 260 hp at the rear wheels), the Mustang came close to spanking the GTO and proved to be more of a worthy adversary for our test. We've heard reports of the Mach 1 going into the 13s, and with some time (and getting used to a balky shifter) we think we could have dipped below 14.

- Paul Zazarine

On the other hand, the GTO is an iron fist in a velvet glove. It's subtle, but it's lethal.

To assist in the data acquisition and analysis, we invited some experienced Pontiac owners and racers. One phone call to Walt Hollifield in Charlotte, North Carolina, was all it took. Walt, one of the country's most prolific GTO collectors, trailed in his magnificent 44,000 mile 1970 RA IV Judge for a little Pontiac family shootout (unfortunately, his clutch let go on the first run). He also enlisted the aid of NHRA Top Stock Eliminator record holder Truman Fields, racer Harold Cook, and Rodney and Millicent Oliver. This "North Carolina Mafia" appraised the '04 Goat



On The Dyno

Orlando's Roger Vinci Automotive was kind enough to interrupt their busy work schedule to diagnose our GTO's performance on their dynamometer. Joe Vinci did four "full pull" second-gear runs to 6000 RPM, and what their analysis revealed was illuminating. Most of our difficulties in standing-start launches was due, as we discovered, to the fact that automatic GTOs have special safeguards in place to protect the driveline from the huge torque of the LS-1 engine. On the dyno we were not able to reproduce the car's off-idle "stuttering", since all the pulls were done from a "20-roll" to the redline in second gear, but the dyno tests did give a full accounting of the LS-1's performance curve. As the chart shows, our engine was mechanically in full song, making 259.1 rear wheel

horsepower and 276 lb-ft of torque - similar numbers to a Z-06 Corvette. The Tec-2 engine analyzer revealed, however, that the car's computer was doing its best to ruin our day, by progressively "de-tuning" the engine on every successive run, responding to a combination of sensory inputs. The oppressive 93-degree heat, the humidity and a load of terrible gasoline were sending strong signals to the computer to pull timing out of the engine. Vinci says this protective mechanism, along with the car's other killjoy apparatus like Traction Control and Torque Management, conspired to make the automatic-trans car a large purple brick from zero to twenty. If we were going to have any fun at all, we were going to have to "outthink" this car's black box. We're grateful to Vinci Automotive for their knowledgeable assistance.

- Stan Rarden

Another 40th Anniversary

The 2004 GTO supplied to us by Pontiac reminded me of the devastating road test of the 1964 GTO in *Hot Rod* magazine. *Hot Rod* had been trying to get their hands on a GTO since word broke that the car was going to be released and were not pleased when *Car & Driver* scooped them. They finally tracked down a convertible that had been ordered by the wife of Pontiac's LA zone office and tested it. They weren't impressed.

The car they had procured was a four-barrel, two-speed automatic convertible with air and a 3.08:1 peg leg. *Hot Rod* found it to be, frankly, a stone and rightly so. "So what's the big deal?" they wrote. They also noted it was slower than the 327 Impala Super Sport tested last month.

According to Jim Wangers in his book *Glory Days*, it was this disastrous road test that led him to convince PMD General Manager John DeLorean that he needed a fleet of specially prepared test cars for the press fleet to ensure the cars would never fail to turn in impressive test numbers. Were they ringers? Of course they were. But on the same token, they represented what a GTO could do in the quarter mile if prepared properly.

Forty years later, *Pontiac Enthusiast* is supplied with a 2004 GTO and guess what? It's déjà vu all over again. Our "grape Goat" fell flat on its face the first time we put it on the track, turning a 14.87. This was a colossal surprise, especially in light of the times we had been quoted in and out of Pontiac and reminded us of what had happened 40 years earlier.

—Paul Zazarine

Modern Muscle Match Race

coolly and respectfully, reserving comment until the car had demonstrated its ability to behave like a GTO. Everyone had seat time in the Mustang and the GTO for driving assessments. It didn't take long for the new Goat to make friends with this traditional Pontiac posse. Even though the good old stoplight banzai is still part of a musclecar's resume, today's musclecars are (and have to be) about more than just straight-line performance. So our test drivers made sure to evaluate every aspect of the cars' performance. Both cars scored highly on fit and finish, but the GTO impressed everyone as a far more upscale automobile than the Mustang.

We then hit the drag strip for straight-line

Tale of The Tape

	2004 Mach 1	2004 GTO
Engine	MOD DOHC V-8	OHV, 2 valves per cylinder
Displacement	281 CID	346 CID
Horsepower	305 @ 5800	350 @ 5200
Torque	320 @ 4200	365 @ 4000
Compression	10.1:1	10.1:1
Induction	sequential multi-port fuel injection	sequential-port fuel injection
Transmission	5-speed manual	4-speed electronic automatic
Rear Axle	3.55	3.46:1

—Paul Zazarine

acceleration tests under a 95-degree sun, with equally high humidity. Walt and Truman alternated driving the two cars, and on the GTO's first pass we knew we had trouble. Our auto-tranny GTO's engine control computer inhibited off-idle performance so severely that the car literally fell on its face off the line. Repeated attempts to cure this ailment included turning off the traction control, feathering the throttle on the launch and driving the car out past the tree before nailing the throttle. Best we could muster was a 14.79/94 mph. Meanwhile, the Mach 1 was spanking the GTO on every pass. What gives?

We enlisted the aid of Brett Downs and Phil Dumas of Orlando's Modern American Sports Cars, specialists in LT-1 and LS-1 performance. Brett prescribed an emergency session at Roger Vinci Automotive. The Vinci folks were kind enough to clear the chassis dyno for us, which revealed that the GTO was mechanically sound, but severely challenged in the computer area (see sidebar). Based on the computer data, our pre-production car still had some "Holden" in its engine-control protocols, the most maddening of which was a torque management routine which killed low-end performance on hard launches — an unfortunate characteristic of automatic trans '04 GTOs. This, plus the oppressive heat and humidity and a load of bad fuel, conspired to prevent the GTO from turning the times we knew it was capable of.

Interestingly, from 20 to 130 MPH the car pulled like an F-18 on a catapult launch. Once rolling, feeding in more accelerator pinned you back in the seat and keep you there until you let off. Problem was, the computer would not allow all that power to come online when we dropped the hammer from a standing start.

We fixed that problem the next morning thanks to Brett's new-millennium tuning tricks, starting with a small resistor that fooled the computer into thinking it was 56 degrees outside instead of 95. Next, we disabled the traction control and erased the computer's



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memory by pulling the ECM fuse between runs. These simple fixes, along with icing the MAF sensor and intake manifold between runs, resulted in a best ET of 14.05/98 MPH. The Mach 1, whose 5-speed-shifted 281ci engine consistently clicked off ETs in the 14.40s, recorded a best time of 14.14.

The third segment of our triathlon was on the handling course, and that rendered some interesting results as well. We expected the more nimble Mustang to excel in this area, but at the end of five runs each, the GTO had bested the Mustang through our tight, 800-foot slalom course, running the cones from a standing start at 11.5 seconds to the Mustang's 12.4 seconds. Once again, each driver got multiple runs in each car to ensure fairness.

We've drawn two conclusions for this match-up. First, our detuned GTO pilot car is not indicative of how the production cars will perform. With a few tricks, we shaved 8/10s off the ET. Production GTOs will easily be into the mid-13s, and most importantly, the manual-trans GTOs will not have this torque management performance-killer in their computers. Second, 2004 GTO drivers will have no problem defending the GM flag against marauding hands of Mustang street racers, at least as long as they're not driving 400 hp Cobras!

PE

DRIVING IMPRESSIONS: 2004 GTO

After two days behind the wheel of this car, in every driving situation from dragstrip to bumper-to-bumper traffic, everyone got a good flavor of the GTO.

THE "NC MAFIA"

Walt Hollifield: The car in a word - "Strong"

"...excellent quality, comfortable, unbelievably fast...can't believe how fast this thing got to 130 MPH... for the first time in a long time, here's a car you can work on, hot-rod, improve...It's going to put a lot of fun back into street performance."

Harold Cook: The car in a word - "Unique"

"...this is a car for both young and old musclecar fans...great fit and finish, much like expensive foreign cars...sure does draw a crowd...deserves the name GTO."

Rodney Oliver: The car in a word - "For real" (okay, two words...whatever)

"...prettier in person than in pictures...a whole lot more car than I expected...still nostalgic enough - needs more 'throwback' styling...absolutely the fastest showroom stock car I've ever driven."

Millicent Oliver: The car in a word - "Exhilarating"

"...great acceleration...bad blind spots (rear and side visibility)...needs more gauges, less 'video game' dash displays...attractive, but not distinctive enough - needs more GTO styling cues."

Truman Fields: The car in a word - "Surprising"

"...didn't expect it to be this strong...feels great, like an expensive car...this car's going to shock everyone on the street."

THE EDITORS

Stan Rarden: The car in a word - "Startling"

"...anyone who says this car is plain-jane hasn't seen it in person...sounds like a big block - listening to it go down the dragstrip was a thrill...huge, booming exhaust note...haven't felt part-throttle response like this since 1969."

Paul Zazarine: The car in a word - "Astounding"

"...this car is unbelievably strong...throttle response is right now and the resulting neck-snapping power feels like nuclear fusion and not internal combustion...quiet, the cockpit's sumptuous and it zipped through the slalom like a slot car."

**GTO vs. Mach 1:
The Results (After Tuning)**

	MACH 1	GTO
RUN 1	14.42/98 MPH	14.22/96 MPH
RUN 2	14.25/101 MPH	14.14/98 MPH
RUN 3	14.15/103 MPH	14.05/98 MPH

STAN RARDEN