

Cheetah: The lost Cobra eater

By Chris Callahan

When you look at it—when you look at it—the Cheetah looks like something done with funhouse mirrors. It's wide, flat, narrow and short all at the same time. The front intake's gaping grin laughs at and mocks you just like the clowns on the funhouse walls. The overall effect is like a cross between an E-Type Jag and a Cobra Daytona coupe or a Ferrari GTO, all twisted by some weird gravitational force. It is doubtful that you'd ever mistake a Cheetah for any other car; it's just as doubtful that you'll ever have much opportunity to do so.

Fewer than two dozen Cheetahs rolled out of Bill Thomas's Southern California shop between the fall of 1963, and April, 1966. And while it was a catastrophic shop fire that finally did the car in, the handwriting had been on the wall long before that. Initially, Bill Thomas was privy, as the West Coast's resident demon-tweaker of Cor-

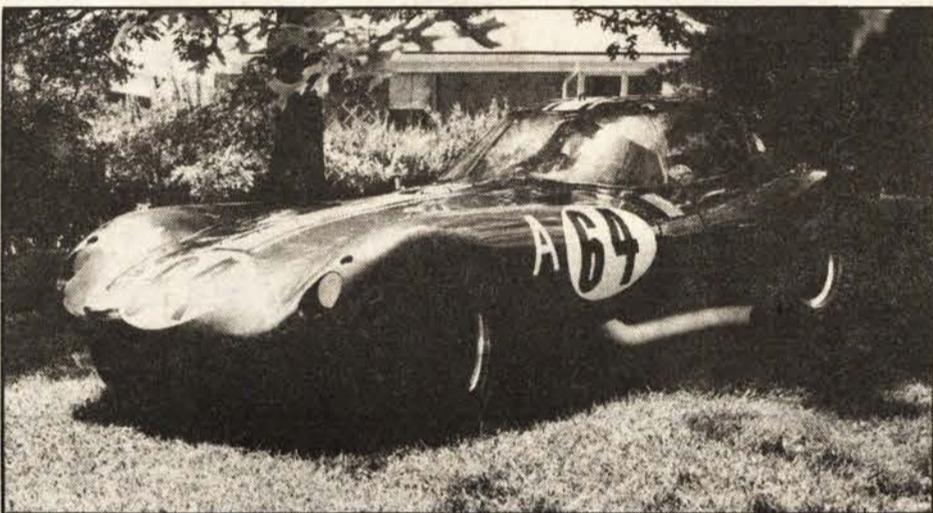
too small and infrequent to keep Chevrolet interested. GM decided to beat Cobras with Corvettes. Thomas was suddenly on his own. Shortly after the 23rd car was delivered to a Cleveland customer, the operation was destroyed by fire.

The Cheetah is a space frame design fitted with a small-block fuel-injected Corvette engine. Most Cheetah V-8s displaced 327 cubic inches, although at least two cars, and probably more, were delivered with 355-inch "stroker" engines. The normal Rochester injectors topped the motors, with some later cars featuring units with dual metering systems. The transmission is a standard Muncie M21 coupled directly to the Sting Ray differential center section by a common U-joint. Since the engine sits nearly in the middle of the car, there is no driveshaft. A trick shift lever had to be developed because the gearbox was placed so far arrears. Other Thomas detailing included an

cockpit is cramped; while the seats will hold you in place during 1.0g cornering, a heavy sigh will make your sides hurt.

In retrospect, the Cheetah has joined that long list of "What If" automobiles. Lots of potential, but more than a little short on the follow-through. Were it not for the survival of the cars themselves, you could almost be convinced that the entire episode was done with mirrors. Certainly General Motors would like to forget. Bill Thomas isn't thrilled with the memory. Carroll Shelby is probably relieved. Hand-to-hand combat between his cars and the Cheetah might have made the Cobra a second-place automobile.

But to watch that would have been more fun than the clowns on the funhouse walls.



Chris Callahan

vairs, to the General Motors Bargain Back Door Parts Department that was so active while GM "wasn't racing" in the early '60s.

IT SEEMED ONLY natural to Thomas, and to everyone else, really, that Chevrolet ought to be battling the Ford Cobra on its own terms. Because the Corvette was too heavy, that meant new machinery. The "unofficial" racing department had already, by this time, had the corporate guys slam the lid down on the Gran Sport Corvettes. That left only a "sub-contracting" arrangement, similar to Shelby's ties with Ford, as a workable alternative; an operation so slick as the Gran Sport effort reeked of corporate involvement—a definite no-no.

So Thomas had Don Edmonds draw up a lightweight street sports/racer. Edmonds gull-wing coupe design emphasized a low power-to-weight ratio and sleek aerodynamics. At 1,620 pounds dry and with race-tuned Corvette power, the Cheetah had a mere 3.6 pounds for each of the 450 fuel-injected horsepower to lug around. That's two-thirds the figure for the 427 Cobra.

Chevrolet bankrolled Thomas's operation for about a year and then the support began to wane. The Cheetah, while proving every bit the equal of Shelby's Cobra, wasn't beating them. It was a problem with rules and with timing. Because Thomas hadn't produced the prerequisite 500 copies for the Cheetah to be considered a GT car, it was forced to race in the modified class, where the big shift to mid-engined racers was on. In the sports/racing class, running against the Chaparral II and the odd Lotus 19B, the Cheetah was hopelessly old-fashioned. In the few races where the Cobra was met head-to-head, the Cheetah literally ran away from the field. There were several road-racing successes at the hands of Jerry Titus and Ralph Salyer—the 1964 Road America 500 was probably the biggest—but the victories were

aluminum flywheel and clutch pressure plate. The first three cars had aluminum bodies made by Cal-Metal Stampings. All the other cars are fiberglass. All Cheetahs were equipped with plexiglass windshields and windows. Fuel was carried in each of two eight-gallon side tanks stashed in the door sills and a giant 24-gallon rear tank.

EVERYTHING ON THE suspension was completely adjustable, from anti-roll bar stiffness to the location of the front unequal-length A-arms. The rear suspension is lightweight, coil-over shocks supporting a surprisingly stock Corvette Sting Ray center section and half-shaft assembly. The wheels are 7.5-inch front and 8.5-inch rear American mags. Brakes are massive 12-inch Corvette drums with sintered metallic linings.

Because so much development went on from car to car, it's possible that no two Cheetahs are exactly the same. That's certainly the case today. The original car was wrecked by Jerry Titus and rebodied in fiberglass. Ralph Salyer chopped his coupe into a roadster to escape the heat forced into the cockpit by the full belly pan. On at least one occasion, a California dealer dropped a 396-CID big block into a customer's car. Several were chopped and used as dragsters; Cheetahs are capable of 10-second quarters at nearly 140 MPH. And at least one Cheetah has been street-driven with the California DMV's blessing, plexiglass windows, hairy motor and all, since it was purchased in 1964.

SONNY AND CHER owned a Cheetah, but the typical Cheetah-buyer was a racer. In 1964, you could buy a racing Cheetah for \$12,500; a street Cheetah went for around \$10,000. By Thomas's own admission, the Cheetah was never a complete, roadable car compared to the Cobra. It is hot, it is noisy and a lot of wind blows through the car. Only a vestigial effort was made to weatherproof the cars. The

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The Thomas Cheetah

Chevy's misdirected back door effort to beat the Cobras

By Pete Lyons

Some motorcycles are like this. Horny, rorty things, all engine hanging out and just enough frame to hang onto. "Mean streets" machines. You expect motorcycles to be like this. But when the same atavistic savagery comes at you in an automobile, you feel your mind warping.

Bill Thomas set out to do exactly that to you. Especially if you were a Cobra driver. He built his Cheetahs to crunch Cobras for lunch.

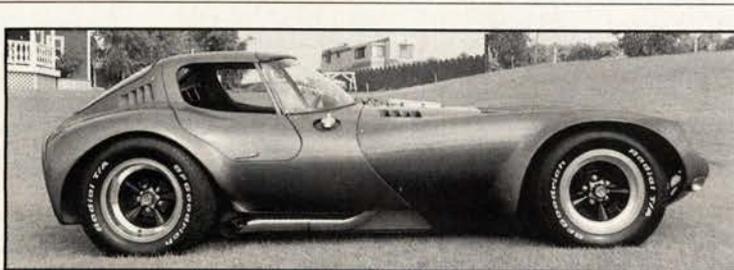
The Thomas Cheetah story began in 1963, at a time when the world's two top automakers had diametrically opposite ideas on marketing. Ford, deeply and broadly committed to auto racing, was helping Carroll Shelby's Cobra tear up American sports car tracks. Many people inside Chevrolet were game to compete, and in the new '63 Corvette Sting Ray felt they had a good basis for a weapon. But in February of that year General Motors officially stopped racing.

Bill Thomas, an independent tuner with a good reputation for his race preparation of Vettes and other Chevis, went to Chevrolet's back door with a plan. "Help me build my own sports car," he said, "and we'll beat the Cobras." Chevy opened the door wide and asked him in.

After discussing various designs with Chevrolet (a mid-engined layout was vetoed because it didn't mirror the Corvette), Thomas and ace fabricator Don "Red" Edmunds worked up a car using as many pieces as practicable from the production Corvette. The key to the concept was light weight, which meant small size. Which in turn meant the small-block Chevy V8 was a big hunk of iron to deal with. Apparently working from the rear axle forward, Edmunds planted the engine as close to the differential as physically possible; he deleted the prop shaft entirely, connecting the transmission directly to the differential. That forced the driver's legs to bow out, feet literally alongside the engine. But with the engine that far back, the front axle could be placed on a 90-inch wheelbase—same as the Cobra—and still give a rear weight bias.

There couldn't have been a more elemen-

tal car: a great monster of a motor in the smallest possible cage. With its simple, sketchy aluminum coupe body, the first Cheetah weighed 1510 pounds, three-fourths the weight of a Cobra. It carried a 377 cu. in. motor packing a claimed 520 hp—a third more than the 289 Cobra of the



Pinkham's Cheetah (above) still wears fender flares it donned when it raced. While Thomas' creation accelerates with best of them, its cornering leaves something to be desired (right)



Rob Pinkham photo

Robert Shadle photo

but the Cheetah was rude. Chevrolet's interest faded and, after a shop fire in 1965, Bill Thomas gave up, too.

Ironically, time coupled with rarity has finally given the Cheetah some of the stature it sought vainly in its prime. It was, after all, a product of its time, a rare, fleeting point during a period of momentous change in American motorsport. Today there may be only 10 still in existence.

"My intention when I bought this car in 1972 was to make an ultimate street machine," says Rob Pinkham of Fallbrook, Calif. "Taking the purpose of the car to its fruition as a street car, making as little as possible compromise with the engine.

"I'm going to sell it now partly because when I drive it I become very young."

According to Pinkham's research, this Cheetah is the third or fourth built. It was owned by Alan Green of Seattle and raced by Jerry Grant and Allen Grant, among others. It has the fiberglass body fitted to all Cheetahs after the first two or three, and still has the fender flares put on during its racing career. It also has a large oil cooler mounted horizontally in the top front of the engine bay, exhausting through a large hood opening, making it unique as Cheetahs go. Pinkham's extensive restoration and reworking over the years

have given it street-legal headlights plus comfort and cosmetic enhancements.

But not too many. A ride in this "ultimate street machine" is as elemental as you can imagine. Getting in is a slimnastics exercise as the owner holds the gullwing door and hopes you won't break any thin fiberglass. Your backside fits snugly between differential and rear tire, your spine just clear of the half shafts. Legs, angling outboard of the flywheel housing, slip into a small tunnel alongside the engine. The twin booms of the front fenders seem very, very long.

The eight booms of the engine seem very, very loud. Pinkham installed a 327 with a 60-thou overbore; it has massaged Rochester fuel injection, 12.5:1 pistons, and not a lot of muffling. The artillery barrage of the exhaust, plus all the mechanical sounds of the engine, comes straight into the cockpit. So does plenty of wind. And every bump. Altogether, the sensation is something like a ride on four drag-racing Harley-Davidsons. The acceleration is brutal. You feel your neck bending back, and almost feel your mind warping.

Stalk the mean streets. Find a Cobra. Cheetah is hungry. ■

Cheetah Love

All's well that ends well in Obsessionland

By Nina Padgett

Five years ago, Robert Auxier was carving out a comfortable living restoring Corvettes, but he wasn't happy. He thought it might be the weather, so he packed up his family and moved from Chicago to Phoenix. But something was still amiss. Auxier realized that he didn't want to fix cars—he wanted to build them.

He considered Cobra replicas at first—even went so far as to buy a kit and give it a try. But he didn't know much about Ford drivetrains, and putting a Chevrolet drivetrain in a Cobra was sacrilege, so he sold the Cobra and went back to the drawing board. He found what he was looking for on a vendor's table at a swap meet.

"I was looking for collector toys for my kids, and I saw this slot car of a Cheetah. The vendor wanted too much for it, but I couldn't get this Cheetah out of my mind."

Actually, it was love at first sight. Auxier knew what he wanted to do with his life. He wanted to finish the project that had been started almost 30 years earlier.

Finding a real Cheetah wasn't so easy. Only nine of the original 26 cars remained, and if Auxier thought the scale-model Cheetah was pricey, he was floored by the amounts being asked for an original. But he was able to buy two bodies in Canada, and some original molds. Then he began hunting down any documentation he could find on the original cars, as well as the creators, Bill Thomas and Don Edmunds.

The Cheetah would have been Chevy's answer to the Cobra, had the project survived past the development stage. At the time (the early 1960s), Chevy was utilizing small builders working outside the factory to produce products for its racing program. Bill Thomas owned a race car shop in Anaheim, Calif. Don Edmunds, who had been Rookie of the Year at Indianapolis in 1957, combined driving prowess with a strong engineering background. Through his shop, Thomas had both the connections and the finances to build a prototype race car.

The first two prototypes were aluminum,



although subsequent Cheetahs were fiberglass. The Cheetah's frame was made of arc-welded chrome moly tubing. The car had a 90-inch wheelbase, and a 45/55 weight bias. The complete car weighed slightly more than 1500 pounds. The rack-and-pinion steering assembly could be modified to change the ratio by moving the tie rods between holes in the steering arms. The front suspension was a wishbone design with coil-over shocks, while the independent rear suspension mimicked the design first used on the 1963 Corvette Sting Ray. The Cheetah rode on 15-inch American racing wheels with Goodyear Blue Streak racing tires.

The drivetrain consisted of a 327 or 377 cid Chevy small-block with a Muncie four-

speed. Later, a big block was made available. The small-block was tuned for racing with forged aluminum pistons, a high performance cam, ported heads and oversize valves. Purchasers had a choice of carburetion or fuel injection. With its 4:1 power-to-weight ratio, a 377 Cheetah delivered more than 500 hp on the dyno. Testing at Riverside confirmed Thomas' prediction that his race car would exceed 200 mph.

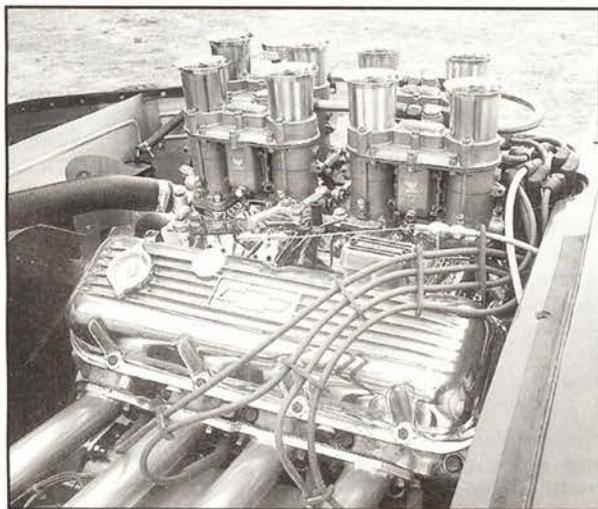
Under a shroud of secrecy, Thomas shipped an aluminum-bodied car to the GM Tech Center for inspection by then-Chevrolet division general manager Bunkie Knudsen and other top brass. Those who saw the Cheetah run at the Milford Proving Grounds said it registered the highest lateral acceleration (1.18g) of any front-engined/rear-drive car the division ever tested.

But that's engineers talking. Among drivers, the Cheetah was legendary as one of





Small-block Chevy (left) sits so far back in replica Cheetah frame that there's no real driveshaft between transmission and rear axle, and the weight distribution is tail-heavy. Cockpit position (opposite) puts the rear wheel wells adjacent to occupant's kidneys.



forgiveness involved in it. It's exhausting to drive; it requires more concentration than any car I've ever driven."

But it is, and was, fast. By the end of the 1964 season, Cheetahs had won 11 SCCA races in the sports/modified class. It did a quarter mile in 10 seconds, and was clocked at Elkhart Lake at 185 mph.

That's when Thomas' luck ran out. Chevrolet pulled out of racing and cut off its support money. Shortly thereafter, a fire at Thomas' shop destroyed all of the molds and tooling for the Cheetah.

And so the Cheetah died with all of the pomp (none), ceremony (none) and documentation (almost none) typical of race car projects that almost make it. Until Auxier came along with his determination to bring the whole thing back to life.

He called Don Edmunds to get drawings of the original chassis. He sold almost everything he owned, including his beloved Harley, to raise money. Auxier's back yard was stacked full of Cheetah parts; his kitchen table was piled high with drawings, literature and historic photos. The family lived, ate and breathed Cheetah. The kids played with Cheetah models and wore Cheetah T-shirts. The workshop bustled with activity from morning to night, employing just a couple of workers outside the immediate family.

Auxier spent a year hand-crafting the chassis, replicating the chrome-moly frame,

and installing the modified Vette drivetrain. The body was hand-laid fiberglass, just like the original. After six months, its bare surface was smooth as factory paint. When Auxier finished his prototype, he towed the car from Phoenix to Anaheim and parked it in Bill Thomas' driveway. "The hiatus is over," said Thomas. His Cheetah was back.

And Bob Auxier is in business, hand-building race cars with all of the passion and fanaticism of others who have pursued the craft, past and present.

From a practical standpoint, the hand-crafted car should have died years ago. Today, there are more efficient ways of doing things. On a similar note, Auxier's finished Cheetah lacks the sophistication of modern sports car designs. The steering and suspension are antiquated, and the Weber carbs clearly harken to a former era.

But that's not the point. To Corvette-restorer Auxier, the Cheetah represents a neglected chapter in Chevy racing history, from a time when one person of creative bent and modest means could make a difference. For the true aficionado, that alone is worth celebrating.

A complete Auxier Cheetah costs \$50,000, which is \$42,000 more than the original. It is offered with all of the options available on the original cars: small- or big-block Chevy engines, three Muncie transmission choices, and Positraction rear-axle ratios ranging from 3.08 to 4.56. The cockpit duplicates the original, including Borg Warner instrumentation. And like the original, it goes like hell. It's a serious race car—a dynamic performer with luscious attention to detail. ■

the fiercest, most difficult cars to drive that ever existed. Today, Al Bahoric races a 377 cid Cheetah in vintage events. His comments are instructive.

"It's got near-perfect balance front-to-rear, which means it wants to spin like a top in every corner," says Bahoric, who has raced several high-powered sports racing cars including both American-made specials like his Huffaker Special and various Ferraris. "In slow corners, the car pushes, in the fast corners the car oversteers and the problem with it oversteering and the reason you see lots of pictures with the car in a lot of tire smoke is that you sit directly between the rear wheels, so you don't have enough reaction time unless you're a world champion-caliber driver. The only way to drive it is to anticipate that you're going to spin in every corner. It's not like a conventional car where you can feel the tail starting to slide and adjust the throttle or steering. When it goes, it goes in a big way all at once and there's generally no