

Pop quiz: Can you name the most popular two-seat, mid-engine sporting car built in America in the last 20 years? Let's see, is it the fabulous new Ford GT seen elsewhere in this issue, or perhaps the \$430,000, 200-mph Saleen \$7? How about the aerospace tech Vector W8? Although these cars combine mind-blowing performance with traffic-stopping looks, they make better fuel for hormonedriven teenage-boy daydreams than actual daily-driver material. But there's another mid-engine sportster that you may not recall-with its willing V-6 engine, gokart handling and mini-supercar looks, the 1986-1988 Pontiac Fiero GT was 1980s America's everyday exotic.

The Fiero, which debuted in 1984, had roots that went back nearly 20 years. Chief Engineer Elliot "Pete" Estes and John De Lorean had proposed a two-seat sports car based on a shortened Firebird chassis, but General Motors management didn't want Pontiac stealing the Corvette's thunder. By the late 1970s, Pontiac managers decided that they needed an economy car with performance flair. and the design brief was impressive:

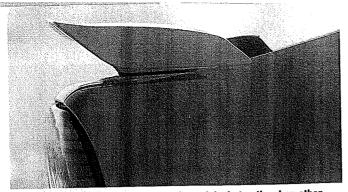
"A mid-engined two-seater with worldclass fit and finish, a body that wouldn't rust, fully independent suspension, fourwheel disc brakes, rack and pinion steering, electronic fuel injection, space frame technology for safety, and spirited performance with great fuel economy...with an MSRP under \$8,000," recalls Mike Murphy, a Pontiac Motor Division district sales manager during the 1980s, "The majority of the mechanicals were right off the shelf—the engine and transmission were straight out of the X-body cars (Citation, Phoenix, Omega, Skylark), the outside mirrors and many power accessorv switches were from the Firebird and Camaro, and the front suspension was modified slightly from the Chevette T1000."

The Fiero's potential for performance was finally realized when Pontiac delivered the V-6-powered notchback GT in 1985. The late-introduction 1986 GI used flying buttresses inset with glass to increase rear quarter visibility; due to the car's space-frame design, this roofline was a simple bolt-on change that also brought a fresh neutral-density taillamp design. The GT's deep front air dam was

Transmissions - The Getrag/Muncie 5speed manual was specific to the Fiero, isn't reproduced, and used or reconditioned examples are becoming very pricey.

complemented by a charcoal-silver ground effects kit in 1986 and 1987; this two-tone effect was swapped for monochromatic paint on 1988 GTs. Base Fieros shared the GT's 93.4-inch wheelbase, although, due to their sporty cladding. GTs were about two inches longer than the base car's 162.7-inch length.

The 1986 Fiero GT, which at \$12,999 cost nearly \$4,000 more than the base model, came standard with the high-output, 140hp, 2.8-liter V-6 and dual exhausts, a Muncie-built Getrag fivespeed manual transmission, staggeredwidth 15-inch diamond-spoke alloy wheels hiding four-wheel power disc



The rear wing was standard on Formula models, but optional on other Fieros; good used ones are available for reconditioning

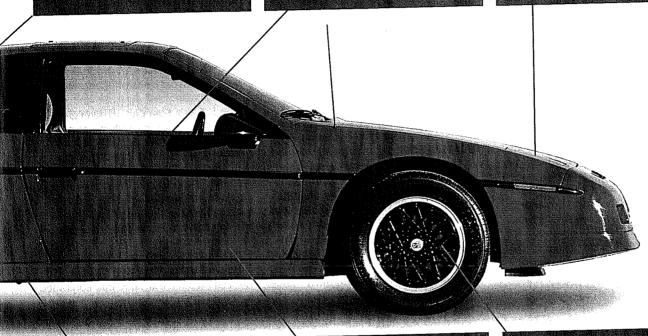


Buttress-mounted quarter windows made of Lexan will age and crack; OEMs are pricey, and reproduction quality varies

Engine - Low oil pressure can damage the 2.8-liter V-6, but performance upgrades and engine swaps can transform Fieros into extraordinary performers.

Interior – Dashboards and interior trim panels aren't reproduced, so restoring originals or locating nice used examples are the only choices for many owners.

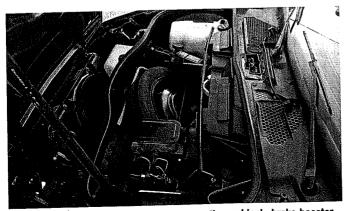
Headlamps – Headlamp motors tend to weaken with age; the inner gear, pins and brushes will often wear, but they can sometimes be rebuilt.



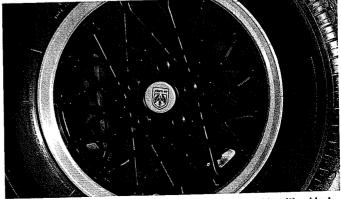
Coolant pipes - Careless use of jacks or lifts can damage the rocker panel-mounted pipes that carry coolant from the radiator to the engine; check them for bends.

Body panels – Although most body panels aren't reproduced, Fiero specialists carry many replacements, and bumper cover repair is feasible.

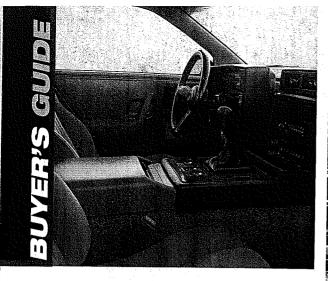
Brakes - Although the Fiero's power fourwheel discs were standard, its brakes are easily upgraded with larger, vented, offthe-shelf GM or Chrysler discs.



Front storage area contained radiator, spare tire and jack, brake booster, washer reservoir and precious little else



Fiero GT's staggered-width aluminum wheels were available with a black or gold finish, and new center caps are now available

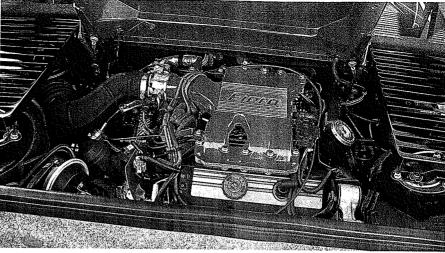


brakes, an AM/FM/cassette stereo and a leather-wrapped three-spoke steering wheel. The GT cost \$13,489 in 1987. Major alterations arrived in 1988 when the Fiero's front and rear suspensions were substantially upgraded, all brake discs were vented and the \$13,999 GT's V-6 engine received an internally balanced crankshaft for greater smoothness.

The Fiero was cancelled after 1988. And while it had never threatened the Corvette's performance domination, the 2,700-pound V-6 GT acquitted itself nicely against the competing two-seat, mid-engine Toyota MR2 and front-engine Honda CRX Si; according to automotive journalists of the day, five-speed manualequipped Fiero GTs ran 0-60 in 7.9-8.1 seconds, while automatic versions averaged 9.0 seconds in the same sprint. The quarter mile was dispatched in just over 16 seconds, and top speed was about 120 mph. And while more than 400,000 Fieros were built during their five-year run, only ten percent were fastback GTs; 17,660 were built in 1986. 15,968 in 1987 and a mere 6,848 emerged in 1988. Despite their plebeian roots, Fiero GTs are considered sporty cars worthy of real enthusiasm, and a surprising number of clubs, online forums and vendors provide fans with technical and



GT front bumper caps are being reproduced, but rear bumper caps must be repaired



Mid-mounted 2.8-liter V-6 is sensitive to oil pressure, but replacement parts are plentiful. V-6 and V-8 engine swaps are relatively easy, giving Fieros big performance gains

parts support. Offering exotic good looks, off-the-shelf parts availability, ease of modification and great bang for the buck, the Fiero GT is one of the best unheralded performance cars of the decade.

ENGINES

While base Fieros were powered by the long-running 2.5-liter Iron Duke/Tech IV four-cylinder engine, GTs used the 2.8liter (173-cu.in.) V-6 that was shared with Pontiac's 6000. This 60-degree V-6 used a 3.50 x 2.99-inch bore and stroke in a cast-iron block with aluminum heads and an aluminum intake manifold. With 8.5compression, computer-controlled multiport fuel injection and high-energy ignition, 1985 and 1986 GT V-6s were rated at 140hp at 5,200 rpm and 170-lbs.ft. of torque at 3,600 rpm. Although no major engine revisions occurred, the V-6's power was re-rated in 1987 at 135hp at 4,500 rpm and 165-lbs.ft. of torque at 3,600 rpm. Exhaust was vented through sporty dual outlets, and while the V-6 was also standard on 1988 Formula models, it was optional on "lesser" Fieros. This engine received hydraulic engine mounts to quell vibration in 1988, along with internal balancing.

Through the years, there were minor external changes to the V-6. The timing covers and oil pans used in 1985–86 were identical, as were the ones used in 1987–88; these components cannot be mixed, although complete sets will interchange. "The 2.8 V-6s are very solid engines, but you have to watch for low oil pressure," cautions Todd Weikal, specialist and owner of The Fiero Farm in Bates City, Missouri. "If the pressure drops, the engine will spin a rod bearing and it will need expensive low-end work.

Check the oil gauge in the center dash pod for steady pressure around 60 pounds." Exhaust leaks on the front side of the exhaust manifold and manifold cracks are also common. "The engine strut, or dog bone, is another common problem for most Fieros," says Justin Cote, vice president of operations and tech advisor at The Fiero Store in Stafford Springs, Connecticut. "The rubber in this upper engine mount will fatigue and eventually cause the lower engine and transmission mounts to fail prematurely."

TRANSAXLE

The Fiero used a transaxle that combined the transmission and the differential. When the notchback V-6 Fiero GT was first built in 1985, the only manual transmission that could stomach the engine's torque was the old Muncie four-speed. A stronger Getrag-designed, Muncie-built MG-282 five-speed manual arrived with the fastback GT in late 1986, and it used the same 91/4-inch clutch as did other Fiero manuals. Its ratios were 3.92:1 (first), 2.19:1 (second), 1.38:1 (third), 0.94:1 (fourth), 0.72:1 (fifth) and 3.41:1 (reverse). The first two ratios were changed in 1988 (3.50:1 in first and 2.05:1 in second) to lower engine revs. The Borg-Warner Turbo Hydra-Matic 125C three-speed automatic used a lockup torque converter and ratios of 2.84:1, 1.60:1, 1:1 and 2.07:1 (reverse). These rear-wheel-drive cars used a hypoid open differential and delivered power through constant velocity shafts, like a frontwheel-drive car. Final drive ratios varied between manual and automatic-equipped cars; five-speed GTs used a 3.61:1 axle ratio with an overall ratio of 2.60:1. The 3.33:1 ratio of automatic Fieros was both

their axle and final drive ratio.

"The clutch system is one of the most common Fiero problems on pre-1987 cars," Justin recalls. "But all years will often have a bad clutch arm, clutch line, master and/or slave cylinders."

SUSPENSION

The 1986 and 1987 Fiero GT independent front and rear suspensions were essentially adaptations of contemporary GM front-wheel-drive units; the front was based on the Chevette, while the cradlemounted, strut-based rear was similar to the A- and X-body front unit, but without provisions for steering. The original front suspension consisted of unequal-length A-arms, coil springs, tube shocks and an anti-roll bar. The rear suspension used Chapman struts, lower A-arms, tie rods, coil springs and an anti-roll bar. The GT's comprehensive 1988 suspension revision brought a standard WS6 performance package with lengthened unequal-length A-arms and shorter spindles, upgraded coil springs, tube shocks and a larger, 23-millimeter anti-roll bar. The fresh independent rear suspension used a tri-link design with redesigned Chapman struts, coil springs and a 22-millimeter anti-roll bar.

Fiero GT enthusiasts recommend checking the front and rear wheels of a potential purchase for free play, which may indicate problems with worn tie rods or a loose steering rack. Because the 1988 suspension revisions gave notable handling and ride improvements, these cars are highly sought. Most suspension parts are still available, including control arms, tie rod arms, bushings and ball joints.

BRAKES

Unlike many small economy-based cars, Fiero GTs came from the factory with standard power-assisted four-wheel disc brakes. The solid 10%-inch rotors were swapped for vented units in 1988, and they offered 321.6 square inches of swept area. These brakes hid behind standard black or gold diamond-spoke 15 x 6.5/7inch front and rear alloy wheels wrapped with 205-215/60-R15 front and rear Goodyear Eagle GT+4 tires. The stock ventilated rotors on 1988 Fieros offer greater resistance to fading after hard use, but their one-year-only design means components are tougher to locate. If you want more braking power for your early GT, some newer GM cars can donate their larger rotors and calipers.

SPACE FRAME/BODY

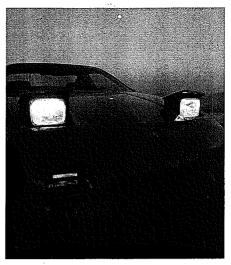
The Fiero's enduring legacy is its revolutionary space-frame design, which was used on GM's 1990s minivans and survives today in Saturn cars. The Fiero's 600-pound space frame consisted of six modules and 280 galvanized and highstrength steel stampings joined by 3,800 welds. The Fiero's unstressed body panels were painted in relation to each other, off of the car. Rigid Sheet Molding Compound (SMC) was used on the roof, the front and rear decklids, the headlamp doors and the upper rear quarter panels. Reinforced Reaction Injection Molded (RRIM) plastic could resist parking lot dents, and was used in the doors, front fenders and lower rear quarters, while Reaction Injected Molded (RIM) polyurethane made up the flexible bumper covers.

The non-corrosive body panels can hide space-frame rust in northern cars; the most common rust areas are under the battery in the engine compartment, on the sides of the trunk by the wheel wells under the carpeting, and in the bolt-on radiator braces. Many Fieros have been afflicted by pop-up headlamp troubles including early mechanical relay and motor failures, but they are often fixable. Body panels are no longer produced by GM, making NOS parts highly sought and used panels the common solution.

INTERIOR

The low-slung Fiero's interior was a sporty place to be; the GT's reclining bucket seats were covered with cloth, unless the optional suede/leather/Pallex cloth (1986-87) or leather coverings (1988) were chosen. As in any older car, the cloth is subject to seam tears or wear. Seat bottoms and seat-bottom upholstery can be interchanged from side to side by swapping the tracks, and the seat-back covers are interchangeable, but only by removing the material

S Pon	tiac Fiero GT Low Average High		GT e High
1986		\$2,500	
1987	\$2,000	\$3,000	\$4,000
1988	\$3,000	\$4,000	\$5,000



Pop-up headlamps are troublesome; motors can often be rebuilt or replaced with used

from the frame. New headlining material is available if the optional sunroof had a damaging leak, and carpet kits are also sold. Door panels and faulty gauges must be reconditioned.

RESTORATION PARTS

Because the Fiero GT is a relatively modern car with a low production volume, it doesn't have the huge supply of aftermarket reproduction parts of an early Firebird. But its common GM mechanicals make it easy to locate new, NOS or used

Parts Prices Air breather rubber grommet\$8 Battery support\$25 Brake master cylinder, 1986–87 rebuilt\$48 Clutch pedal assembly, OEM.....\$30 Distributor for V-6, rebuilt\$160 Emergency brake boot, black\$25 Engine strut\$77 Exhaust tip heat shields, GT\$30 Front fascia GT emblem insert ..\$25 GT rear trunk weatherstrip\$158 Lower fender molding.....\$20 Outer door glass seal\$40 Positive battery cable\$17 Quarter windows, GT aftermarket.....\$150 Radiator overflow reservoir\$22 Rear trailing arm kit, 1988\$300 Rocker panel rivet, plastic\$1 Seat upholstery kit\$350 Sunroof weatherstrip\$76 Upper control arm bushing kit, 1986–87.....



Owner's View

"When I drive the GT, I'm totally under control," says Chuck Gaines of Tucson, Arizona. "It's just glued in the corners — I've taken curves marked '35' at 90." Not bad for a car originally envisioned as commuter transportation. "It definitely has a firm ride, but if you're a sporty-minded driver, you don't mind. It's very comfortable to drive — I've spent eight hours in those seats. It feels snug, but there's plenty of room, and the driving position doesn't make my arms or legs tired." Chuck reports that his 1988 GT's cable-shifted five-speed manual is very smooth, and as long as a Fiero's cable linkages are in good shape, it can be shifted fairly quickly without issue. Are Fieros as strong as their crash test ratings indicate? "I know how stiff the car is each time I turn into an



angled driveway...one wheel will literally lift off of the ground, and there's no flex in the space frame. The only noise I hear in the body panels is a bit of noise in the sunroof area." Chuck drives this Fiero sparingly, wanting to keep the mileage low. "I bought it as an investment car. It's a 17-year-old car that still looks like a brand-new design, even today, that people turn and look at," he smiles.

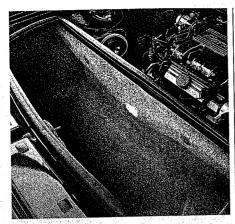
replacements both from Fiero specialists and from your local auto parts store. "Many GM parts are still available," says Fiero enthusiast and restorer Paul Vargyas of Lisle, Illinois. "The most difficult GT parts to locate are the Lexan quarter windows and the taillamp covers, because they're currently not being made. They will often delaminate or fissure crack with sun and heat; unfortunately, OEM replacements are rare and expensive, and the quality of some aftermarket replacements isn't up to snuff." It's easy to find and recondition items ranging from body panels, wheels, trunk carpeting and rear spoilers. And although factory exhaust systems aren't sold, aftermarket systems can be made to look stock with Fiero exhaust tips.

PERFORMANCE PARTS

Because they were over-engineered, Fieros are ripe for engine upgrades, and a surprising number of enthusiasts take on the challenge. "Purists who want to keep a stock appearance but increase power will stroke the 2.8-liter into a 3.4-liter," Todd notes. Stock 2.8-liter V-6s also respond well to turbocharging and computer calibration upgrade chips; and larger fuel injectors, oil coolers and free-flow exhaust systems with headers will also add power. Todd says that actual engine swaps are easy, with popular alternatives being GM's normally aspirated or supercharged 3800 V-6 and Cadillac's 4.9-liter V-8, although Chevrolet's DOHC 3.4-liter V-6 and Cadillac's 4.6-liter Northstar V-8 add some complication but are feasible. The ubiquitous small-block Chevy V-8, in



Pristine GT-specific taillamps are among the most sought and pricey replacement items



Pull back the corners of the trunk carpet to check the wheel arches for hidden rust

all its wildly upgradeable forms, has also successfully found a home between the Fiero's rear wheels.

CHASSIS UPGRADES

Because of its super-strong space frame, the Fiero is a great base for chassis upgrades. Spring, shock and strut rates can be upgraded for tauter handling, and stock Delco shocks can be replaced by adjustable Konis. Upgrading the brakes of a pre-1988 GT is easy: Install the vented front rotors and calipers from 1988 Grand Am and the master cylinder from a full-size 1992 Chevy Blazer 4x4, or use four rear 11.25-inch rotors from a 1989-1995 Chrysler LeBaron with 1982-1992 Camaro front and 1979-1985 Eldorado, Seville or Riviera rear calipers. If you have a 1988 GT, you can re-use your stock calipers and upgrade the front rotors to the 12-inch versions from a 1988-1995 Corvette. Nearly any stock wheel with a 5-lug, 100-mm bolt pattern will fit a Fiero, including those from a 1990s Pontiac Grand Am or Vibe, Beretta GTU, Celica GTS or a PT Cruiser. With minimal cash and some creativity, you can make a Fiero GT into the semi-exotic sports car of your dreams.

Club Scene:

Northern Illinois Fiero Enthusiasts

630-305-9806 www.fierofocus.com Dues: \$25/year; Membership: 360

Pontiac-Oakland Club International (Fiero Chapter)

941-792-4992 www.poci.org Dues: \$31/year (add \$15 for Fiero Chapter); Membership: 10,000



"While returning from a local car show in May 2003 I stopped at the grocery store. As usual, I parked my restored 1969 Mach 1 clear of any potential hazards and planned a very quick shopping stop. While proceeding back to the Mustang I noticed a large, ugly streak down the passenger side. Even after my precautions the car had been hit and I was devastated! I was very concerned about how this mishap would be handled by my insurance provider, American Collectors Insurance. The ACI claims representative responded with complete understanding and assured me the car would be repaired as soon as possible. I could even use the restoration shop of my choice. Within no time my Mach 1 was expertly repaired. American Collectors does not just insure collector cars, they understand car collectors."

-James Benedetto

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