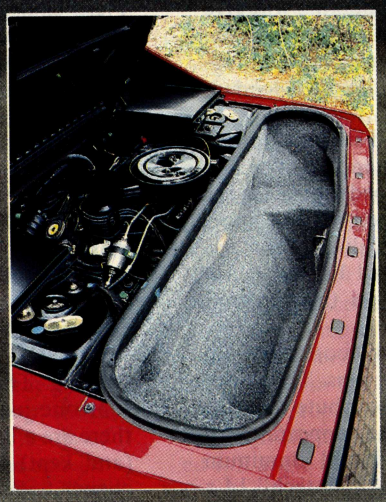
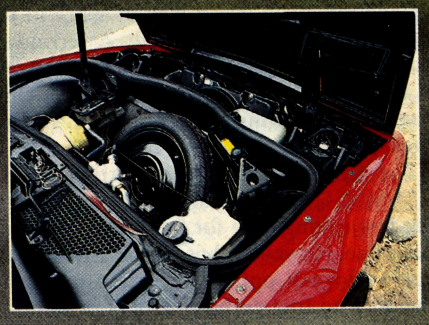
ROAD & TRACK ROAD TEST

PONTIAC FIERO S/E

Ready, willing and (pretty darn) able

PHOTOS BY JEFFREY R. ZWART





IT'S NOT OFTEN that we test a completely new car, one without any antecedents whatsoever. The Fiero is such a car, without precedent at Pontiac, only the second 2-seater from General Motors and absolutely alone as a U.S.-built mid-engine car. One could ask whether it took a lot of courage for Pontiac to put it into production, or whether its appeal and potential are so strong that the GM division is on to a sure thing. Its novel construction and method of manufacture (see accompanying articles) required a huge investment of money as well as brainpower, and it's obvious that this product is intended to meet the challenges of European and Japanese industry head-on. The sleeping giant is not only stirring, it's stretching its muscles.

Known as the P-car project within GM, as well as to the press during the several years that its development was being revealed in bits and pieces, the 2-seat, mid-engine, 4-cylinder coupe has the designation 2M4 and the marketing name Fiero. An Italian word, *fiero* means "proud" or "dignified." The first definition is appropriate, as the Pontiac engineers, designers and production staff have given their all in bringing it to market; as for the second—well, the car may be just a bit too much fun for that.

In all, R&T staff members drove seven or eight different examples of the Fiero, most of them only briefly but three of them for extended mileage in varying conditions that included race track time at Sears Point, long-distance touring and quick around-town runs. All of the Fieros were pilot machines, that is, cars assembled in advance of regular production but built at the plant from the same machinery at a slower introductory pace. As a result, we noted several problems in the fit or operation of minor components, mostly in the interior, but as none of these problems occurred on more than one car, we didn't feel they were inherent design shortcomings.

At first look, the Fiero says, "Like me." Its size, proportions and styling all generate immediate appeal and we didn't encounter anyone who disliked its appearance. Being built with the X-car drivetrain, it is a wide car at 68.9 in., considering its 93.4-in. wheelbase. This, especially when combined with the P215/60R-14 Eagle GT tires and large wheel houses, gives it a feisty appearance, but an overly aggressive impact is avoided by the smooth, harmonious body contours. (We may see a bit more brawn expressed by the exterior when the higher-performance 2.9-liter turbocharged V-6 version makes its debut, probably as a 1985 model.) The entire body is plastic, of several types varying in rigidity and flexibility; the surfaces and paint were uniformly good as was the panel fit—especially significant given Pontiac's unique mill-and-drill process for maintaining close tolerances at the attachment points. There is little visual evidence of Pontiac heritage: the Fiero badge is all new (although somewhat reminiscent of the Trans Am's hood chicken in the graphic representation of the winged horse) while division identity is confined to the word Pontiac recessed into the left headlight door and rear facia, and the triangular company emblems on the ➤

AT A GLANCE	Pontiac Fiero	Fiat X1/9	Mazda RX-7
List price	est $9000	$15,990	$10,895
Curb weight, lb	2590	2160	2445
Engine	inline-4	inline-4	2-rotor Wankel
Transmission	4-sp M	5-sp M	5-sp M
0–60 mph, sec	11.6	12.4	9.7
Standing ¼ mi, sec	18.2	18.6	17.1
Speed at end of ¼ mi, mph	72.5	72.0	80.5
Stopping distance from 60 mph, ft	150	141	151
Interior noise at 50 mph, dBA	68	73	71
Lateral acceleration, g	0.812	0.772	0.767
Slalom speed, mph	60.6	60.7	58.6
Fuel economy, mpg	25.0	27.0	21.0
Issue		1983 S&GT[1]	1983 S&GT[1]

[1]Road & Track's Guide to Sports & GT cars

B-pillars. The twin black bumper pads front and rear give a variation on the Pontiac split-grille look and avoid any confusion with Chevrolet styling practice (early P-car prototypes were dangerously close to Chevrolet character).

The pleasing exterior is followed up very well by an inviting and accommodating interior. Again, the car's width is significant; it certainly allows the amount of room that American car owners are used to, side-to-side and fore-and-aft if not in height. The low seats, with substantial bolsters for lateral support, make getting in a little difficult on the driver's side; the passenger, with no wheel to fit his legs under, has no problem. The cloth upholstery, available in either gray or tan schemes in a narrow range of tones, imparts a richness without trying to achieve a luxury appearance. The Fiero comes as either a base model (what Pontiac calls entry-level) or with the S/E package. The former is somewhat spartan, designed as a price leader, and we feel almost every buyer will want the S/E model, with significantly more truly usable equipment.

The instrument pod, positioned close to the steering wheel with headlight, interior light, rear-window heater and rear deck release switches near the driver's fingers, has large, round, traditional dials for tachometer and speedometer, with the pointers well emphasized in orange. Fuel, water temperature and alternator gauges are included but none for oil pressure, one of the several functions in the warning light display. The steering wheel has a nice fat rim and the driver's right hand drops right onto the gear lever, angled toward the left because of the great width (10 in.) of the console. The console is high, intentionally so to provide a natural armrest, and includes the electric window and mirror controls, as well as *two* ashtrays (the In joke at Pontiac engineering is that project chief Hulki Aldikacti, an inveterate smoker, required them). At the front of the console is the housing for the heater/ventilation/air conditioning controls and the Delco AM/FM stereo receiver and cassette, which has seek-and-scan buttons and a graphic equalizer. The a/c system produced lots of airflow in every mode in the best American manner, while the radio was enhanced by stereo speakers in each headrest (the signal can be moved to the two dash-mounted speakers by the balance knob).

The test car was equipped with almost every option on the Fiero list (in addition to those already mentioned): cruise control, electric door locks, door map pockets, carpeted mats, sun visor vanity mirror, tinted glass, and multi-cycle windshield wipers, the last-named with the strongest, most effective washer spray we've encountered. Items not on the car tested but which we experienced on other examples were the 3-speed automatic transmission (good enough if you absolutely refuse to shift gears), rear deck luggage rack (useful, considering the very limited luggage volume behind the engine, if somewhat spoiling the car's lines) and rear-opening/removable glass roof panel (offering as close to open-air driving as possible with the full spaceframe upper structure).

The main chassis option, which we consider necessary to the Fiero's appeal, is the WS6 suspension package. This consists of stiffer springs and shocks front and rear, 14-in. cast aluminum wheels of great visual as well as technical impact, and the already mentioned 215/60 Eagle GT tires. Despite the light loading at the front (approximately 1200 lb with driver and fuel) there is a heavy steering effort when the car is stationary or moving slowly; nevertheless, Pontiac's decision not to use power assist is applauded, as the steering is very good at high speed. The turning circle is an unwieldy 38.9 ft and bump steer is really noticed on irregular roads; otherwise placement is precise and driver confidence quickly earned. Adhesion is excellent, with 0.812g recorded in the skidpad test and 60.6 mph achieved in the slalom. With moderate understeer, the technique on winding roads is to go in deep, balance the car with the brakes, and power through, all the while maintaining a high average speed. Without achieving the nimbleness of, say, the Fiat X1/9, the Fiero chassis is an excellent combination of handling and ride. Really rough surfaces, and such things as speed bumps and Botts dots, will send jolts through the system that are mostly felt in the steering. Overall, the Fiero has a capable and confidence-building comportment with the WS6 suspension. The brakes add to this; our overall rating is very good despite a slight lockup at the rear under panic braking. The car on which we recorded the stopping distances was noticeably worse in this respect than several other examples tried later, so it is likely that these figures would be better for most Fieros.

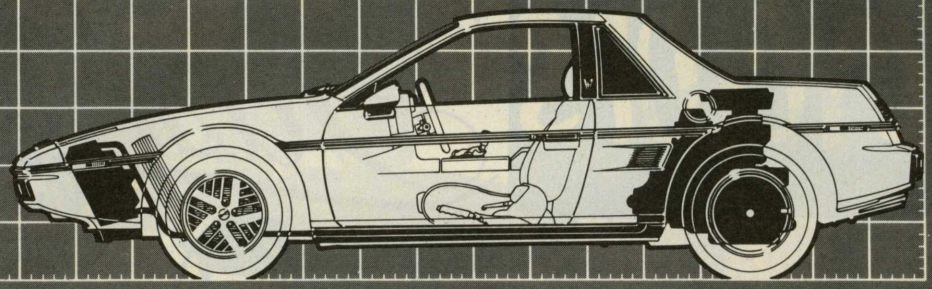
It's good that the Fiero behaves so sportingly when flung about, because the engine (the old "Iron Duke" 2.5-liter 4-cylinder in X-car transverse configuration, moved to the back) is just barely powerful enough to please. The 92-bhp unit only revs to 5000 rpm and there are only four widely spaced gears, so you can't get any thrills running it up to redline and snapping it into the next gear. In fairness, there is enough torque, a respectable 134 lb-ft at 2800 rpm, available through a wide enough band to keep the car moving along strongly without a lot of shifting. When you do lose speed and come down a gear there's a short band of usable revs before you have to shift up again. The initial feeling is one of frustration just as you get the thing going, but after awhile you tend to rely on the good torque to provide a steady if unspectacular reprise.

Although notchy, the shift lever worked well; reverse is hard to find until you learn to shove it forcibly to the left. Acceleration from zero came out a full second slower than Pontiac promises with the standard 3.32:1 final drive (0–60 mph in 11.6 versus a quoted 10.5) so we really don't recommend the high-mileage ratio of 2.42, which allows Pontiac to estimate a highway consumption figure of 50 mpg (a nice round number) and help its CAFE standings. We achieved an overall average of 25.0 mpg in our fairly strenuous use, including a best run of 28.5 cruising at 70–75 mph; probably 30–32 mpg could be achieved at an average nearer 60. Again, this is well below Pontiac's projected EPA number of 42.

As a commuter car (its original rationale when conceived in the late Seventies) the Fiero is already an attractive proposition, with the looks, comfort and quality to reach a wide range of buyers. (One can easily imagine, for instance, a long-time Pontiac owner approving it for a college-age son or daughter when the thought of a Fiat makes him shudder!) Young working couples without children might find it ideal, while it could appeal to almost anyone as a second car for runabout and pleasure use. High performance enthusiasts have two choices: get Pontiac's super-duty engine preparation booklet and the appropriate over-the-counter parts for 140–160 bhp modifications, or wait for the 2.9-liter V-6 versions, one of which is a turbo with 180 bhp and claimed acceleration to 60 mph in the 6-second range. The V-6s are expected for the 1985 model year. In the meantime, we think Pontiac was wise in concentrating on getting the basic car right; we found few serious objections to its concept or operation and welcome its addition to the ranks of affordable machines for enthusiast drivers.

How affordable? Pontiac has been talking about an approximate $9000 base price, although it had not committed to any exact figure by press time. We would also have to estimate the cost of the S/E version and the various desirable options on our test car at $1500–$2000; we would certainly be pleased if a fully equipped S/E came in under $11,000. If so, Pontiac has a winner. The Fiero doesn't compete directly with any other car, but the Mazda RX-7 and Fiat (sorry—Bertone) X1/9 have to be considered. The former has much better power and more of a sports car feel; the latter is an extremely agile driver's car without a lot of power. What the Fiero provides is an extremely desirable base for any of a number of exciting 2-seater applications; as its originator Hulki Aldikacti said, it is good athletic raw material waiting to be trained for special uses. One can easily imagine what doubling the horsepower will do for it; certainly Corvette, Ferrari, Porsche and other high performance car engineers can expect a major challenge.

ROAD TEST PONTIAC FIERO S/E



SCALE: 10 in. (254 mm) DIVISIONS

PRICE

List price, POE Detroit ..... est $9000
Price as tested ..... est $11,000
Price as tested includes air conditioning, handling package (alloy wheels, P215/60R-14 tires, heavy-duty springs), elect. window lifts, leather and sheepskin seat covers, AM/FM stereo/cassette, central door locking, elect. adj mirrors.

MANUFACTURER

Pontiac Motor Division, One Pontiac Plaza, Pontiac, Mich. 48053

GENERAL

Curb weight, lb/kg	2590	1176
Test weight	2770	1258
Weight dist (with driver), f/r, %		44/56
Wheelbase, in./mm	93.4	2372
Track, front/rear	57.8/58.7	1468/1492
Length	160.3	4072
Width	68.9	1750
Height	46.9	1191
Ground clearance	6.0	152
Overhang, f/r	36.2/30.7	920/780
Trunk space, cu ft/liters	6.8	192
Fuel capacity, U.S. gal./liters	10.2	39

ACCOMMODATION

Seating capacity, persons		2
Head room, in./mm	36.5	927
Seat width	2 x 18.5	2 x 470
Seatback adjustment, deg		40

ENGINE

Type ..... ohv inline-4
Bore x stroke, in./mm ..... 4.00 x 3.00 .. 101.6 x 76.2
Displacement, cu in./cc 151 2471
Compression ratio 9.0:1
Bhp @ rpm, SAE net/kW ..... 92/69 @ 4000
Equivalent mph / km/h 83/134
Torque @ rpm, lb-ft/Nm ..... 134/182 @ 2800
Equivalent mph / km/h 58/93
Fuel injection ..... GM TBI
Fuel requirement ..... unleaded, 91-oct
Exhaust-emission control equipment: 3-way catalytic converter, oxygen sensor, exhaust-gas recirculation

DRIVETRAIN

Transmission ..... 4-sp manual
Gear ratios: 4th (0.81) 3.32:1
3rd (1.24) 5.08:1
2nd (1.95) 8.00:1
1st (3.53) 14.47:1
Final drive (rear axle ratio x transfer ratio) 4.10:1

INSTRUMENTATION

Instruments: 85-mph speedometer, 6000-rpm tach, 999,999.9 odo, 9999.9 trip odo, coolant temp, voltmeter, fuel level
Warning lights: oil press., handbrake/brake system, check engine, door ajar, rear deck ajar, upshift, seatbelts, hazard, high beam, directionals

CHASSIS & BODY

Layout ..... mid engine/rear drive
Body/frame ..... separate; fiberglass panels/steel unit chassis
Brake system ..... 9.7-in. (247-mm) discs front and rear; vacuum assisted
Swept area, sq in./sq cm 343 2212
Wheels ..... cast alloy, 14 x 6
Tires ..... Goodyear Eagle GT, P215/60R-14
Steering type ..... rack & pinion
Overall ratio 19.2:1
Turns, lock-to-lock 2.9
Turning circle, ft/m ..... 38.9 ..... 11.9
Front suspension: upper and lower A-arms, coil springs, tube shocks, anti-roll bar
Rear suspension: Chapman struts, lower A-arms, tie-rods, coil springs, tube shocks

CALCULATED DATA

Lb/bhp (test weight)	30.1
Mph/1000 rpm (4th gear)	20.7
Engine revs/mi (60 mph)	2900
Piston travel, ft/mi	1450
R&T steering index	1.13
Brake swept area, sq in./ton	248

ROAD TEST RESULTS

ACCELERATION

Time to distance, sec:
0–100 ft 3.4
0–500 ft 9.6
0–1320 ft (¼ mi) 18.2
Speed at end of ¼ mi, mph 72.5
Time to speed, sec:
0–30 mph 3.2
0–50 mph 8.0
0–60 mph 11.6
0–80 mph 23.2

SPEEDS IN GEARS

4th gear (5000 rpm) 103
3rd (5000) 68
2nd (5000) 43
1st (5000) 24

FUEL ECONOMY

Normal driving, mpg 25.0

HANDLING

Lateral accel, 100-ft radius, g 0.812
Speed thru 700-ft slalom, mph 60.6

BRAKES

Minimum stopping distances, ft:
From 60 mph 150
From 80 mph 289
Control in panic stop ..... good
Pedal effort for 0.5g stop, lb 21
Fade: percent increase in pedal effort to maintain 0.5g deceleration in 6 stops from 60 mph 43
Parking: hold 30% grade? ..... yes
Overall brake rating ..... very good

INTERIOR NOISE

Idle in neutral, dBA 51
Maximum, 1st gear 84
Constant 30 mph 64
50 mph 68
70 mph 73

SPEEDOMETER ERROR

30 mph indicated is actually 30.0
60 mph 59.0
80 mph 79.0

ACCELERATION