

## The tactile sensations from the wheel feel more like a Formula Ford than a Chevette



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tallest drivers. Leg room, especially for the passenger, is more than adequate. Same goes for elbow and knee room. Some people might have a spot of trouble getting into and out of the car, but it's no worse than any other 2-seater around. Hey, it's a sports car, okay? So don't let yourself get fat, and plan to travel light. Actually, you don't have to travel all that light. Two people could take along enough clothes for a long weekend and not get cramped.

The Fiero will be available in two versions, the base version and the SE. The SE is the better handling of the two. It comes with chunky 215/60R14 Eagle GT rubber mounted on 14-in. wheels and includes higher-rate springs and different shocks. The base car has 185/80R13 tires on 13-in. wheels. Actually there's enough room under the fenders to allow 15-inchers. If you're after handling, the WS6 packaging is recommended. You don't have to go with the full SE option treatment to get the WS6 suspension package. The base car comes with almost the same manual gearbox ratios as the higher-level car, but a

All the pieces for turning your Fiero into a racer will be available from Pontiac.

The steering wheel is a thick, well-padded 3-spoker, with the two horizontal spokes ideally situated for locking your thumbs in the three and nine position. The shifter is less than a handspan from the edge of the wheel and the top of the shifter knob is on the same plane as the centerline of the steering wheel. In other words, real

handy. The shift lever has been cocked toward the wheel specifically for that purpose. The fairly high center console (which, by the way, houses the fuel tank), is on the same plane as the armrests on the door. The seats are excellent, well padded, well bolstered, and have enough rake adjustment to suit just about everyone but the

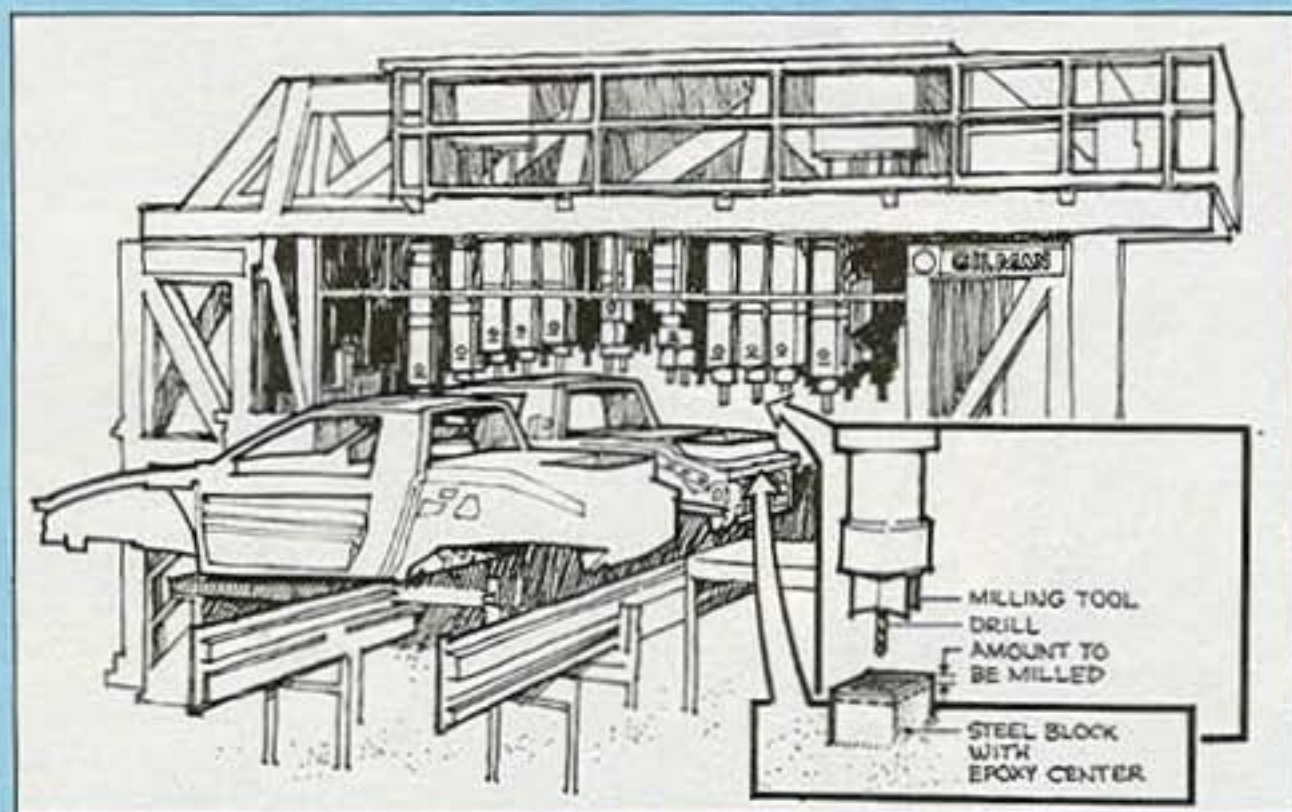


ILLUSTRATION BY STEVE AMOS

and structures before they were welded together. The solution, therefore, seemed simple—just drill all the holes *after* everything was welded up.

Easier said than done. Machining an engine block after it's cast requires a tool about the size of your average room. To machine an entire frame would require a device as big as a small house. And in the Fiero plant, that's what they've got. Built by Gilman Machine Tool, the "mill and drill" machine stands 2½ stories tall and literally swallows each Fiero frame.

At 39 points on the frame are mounting blocks, to which all the Enduraflex

body panels will be bolted. Each block is made of stamped sheet metal, approximately ¼ in. square and ½ in. high. They look like tiny open boxes and are filled with an epoxy compound and then spot welded, by flanges, to the frame proper. The ¼ in. square gives a rough target for the location of the appropriate mounting hole.

As the Fiero frame goes into the mill and drill machine, it is referenced off points on the doors and then clamped into place with great precision. Then 39 separate milling heads descend as one, each going for its appropriate epoxy-filled mounting pad. The milling

heads are driven by individual electric motors, and individual sensors can determine when each cutter bit is through the epoxy and into the steel of the frame beneath (at which point it alters its speed and feed rate accordingly). The individual cutter bits also mill the tops of the pads to a specified height.

The mill and drill machine is so precise the holes are drilled to tolerances of 0.002 in., and the method ensures a fit of body panels within a tolerance of plus or minus 0.5 mm, or less than 0.02 in. Body repair will be simple and quick. All body panels are bolt-on; an owner can change a fender in less than an hour. If you can handle windshield removal, you could redo the entire body in about a day. Repair is so easy, in fact, that Pontiac is already petitioning the insurance industry for lower collision repair rates.

Just like every other new car model of the modern generation, the Fiero has its own brand of fresh technology: a space frame machined to tolerances normally reserved for engines and transmissions. And unlike some breakthroughs that are invisible to the eye and only obscurely understood, the results of that precision are sitting right there on the Pontiac showroom floors, in body panels that fit like they came on a Rolls-Royce and yet can be replaced for repair like they're on a race car. Now *that's* revolutionary.

—Don Fuller