

EXPERIMENTAL



The Fiat X1/9 was the first truly affordable mid-engine sports car. Graziella Diana Ferrero visited Bertone's styling center to see and drive the original show car, a mint production example, and an Abarth Rally car.

Photography by Roberto Carrer.

In the 1960s, the popularity of Fiat-based sports cars built by Siata and Carlo Abarth convinced Fiat's owner, Giovanni Agnelli, that there would be a market for an Italian equivalent of the Sprite, Midget, and Spitfire. So, when it came time to replace the 600 with the 850 series, Fiat simply adopted many of Abarth's techniques and produced a 2+2 coupe and a Giugiaro-designed, Bertone-built spider to accompany the new sedan. The 850 trio debuted at the Geneva Show in 1965.

In the late 1960s, Fiat started thinking about replacing the 850 Spider with an improved model. Bertone was sharing shop space with Fiat at the Grugliasco works in Turin and had already designed one of the most sensual supercar body shapes ever: the mid-engined Lamborghini Miura. At the time, it seemed that the dynamic advantages of the mid-engined sports car would make it the wave of the future. Bertone believed that the rear-engined 850 Spider should be replaced with a mid-engined micro-Miura.

To make the point, for the 1969 Turin show Bertone created a mid-engined car, the Runabout. Giugiaro had left Bertone for Ghia so the design was entrusted to Marcello Gandini. With no engine mass up front, Gandini was able to create a wedge-shaped body. Elements of the Runabout appeared in several of Bertone's prototypes over the next few years, including the Lancia Stratos.

Bertone's design impressed the Fiat hierarchy, and they decided that the 850's replacement would share many of the Runabout's features. To make the initial design practical for production, Bertone added a full windscreen, side windows, bumpers, and doors. While the end result was noticeably more angular, in profile it retained the spindly daintiness of Gandini's Runabout.

For the production car, the Runabout's stout rollbar behind the passengers became a targa bar, which helped with structural integrity. The new car was aimed primarily at the U.S. market, and it was feared that a topless spider would not hold together in the then-rumored U.S. government 50 mph crash and 80 mph roll tests. Thus the spider became a targa, and the project number X1/9 (X for experimental; 1st design, 9th iteration) stuck as the car's name.

The X1/9 chassis itself set an important precedent for the Turin carrozzeria. Nuccio Bertone decided that the X1/9's chassis should be designed and built by his own company. Because the 850 Spider had shared the floorpan of its Fiat sister models, that car's fate was in Fiat's hands. Bertone was on a roll with the 850 Spider and Fiat's decision to terminate the model killed much of the company's business. Bertone didn't want the X1/9 tied to other Fiat models because if the standard cars should be phased out of production, the Bertone Spider could carry on. ➡



OFFICIAL LAUNCH

Launched in November, 1972 on the roads of the Targa Florio's Piccolo Circuito, the X1/9 garnered plenty of favorable press. Production didn't really kick off until early 1973 and one of the first models was subjected to a full road test by *Quattroruote*, Italy's leading car magazine. *Quattroruote*'s test driver, Formula One champion Emerson Fittipaldi, pronounced the X1/9 "a car of the future" and predicted that "other sports car manufacturers will adopt Bertone's construction and styling formulas." Fittipaldi was enthusiastic: "You drive the X1/9 just like you do a Formula One car, and I'm not exaggerating. Rarely have I tried cars with such good, sincere roadholding with which you can select such precise trajectories even at high speed." He also noted that when the car reached its limit of adhesion "it passes decisively and almost without warning from under- to oversteer."

Around 1979, Fiat started pressuring Bertone to increase X1/9 production from

80 cars per day. Bertone was not enamored of the idea, but eventually gave in. Then, in 1980 once Bertone reached Fiat's desired daily production figure of 110 cars, the entire agreement was cancelled, leaving Bertone high and dry.

By mid-1981, with Fiat's assurance of a continuing parts supply, Bertone brought all X1/9 production under its own roof and assumed the task of setting up retail sales channels. The car was rebadged as a Bertone, although what remained of Fiat's North American sales network was made available. That wasn't a benefit, considering Fiat's reputation in the U.S. Ultimately, Bertone selected Malcolm Bricklin as the U.S. importer and he established a number of distributorships through which the X1/9, now called the Bertone, could be sold.

Sales of the Bertone car held up well globally and, although numbers were diminishing by the time production ceased in the spring of 1988, over 180,000 examples were built, with most going to the U.S.

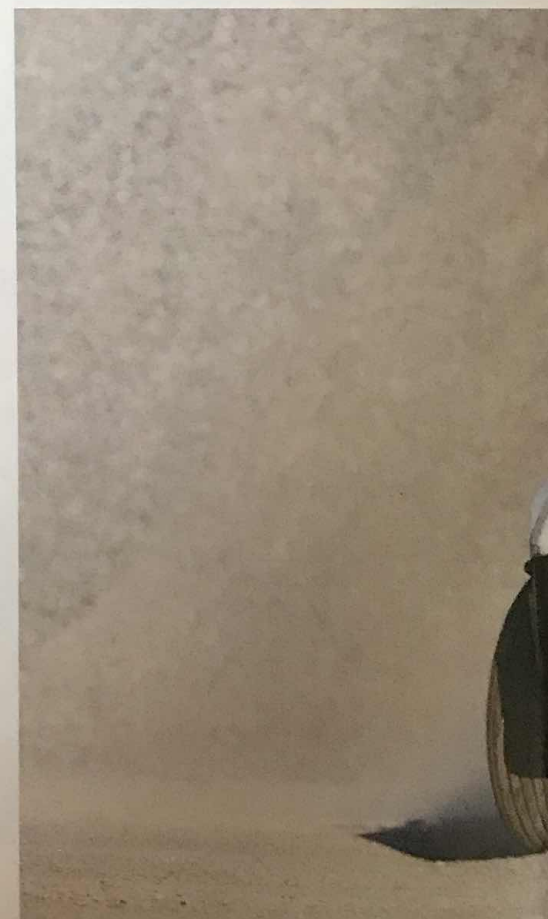
BIGGER WASN'T BETTER

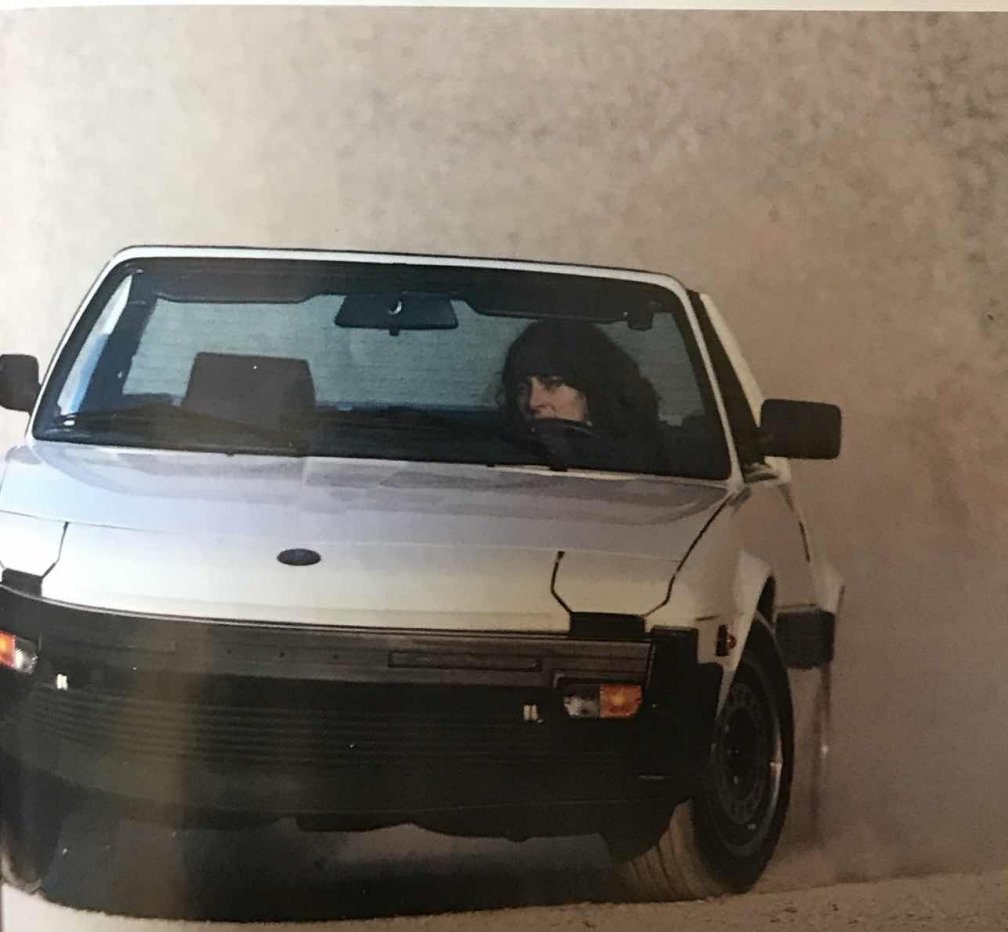
During the car's lifespan, Bertone produced numerous variations on the X1/9 theme, such as a model built entirely in aluminum, and a Dallara-developed "Silhouette" competition version in 1975. One proposal briefly stirred Fiat's enthusiasm. A widened and lengthened version had been developed in response to American pressure for a larger car. With the enlarged prototype, the design objectives were met. The extra length provided new cabin space and allowed ample storage behind the seats. It was more comfortable, but the new dimensions interfered with the X1/9's delicate proportions and even Bertone's people were not happy with it.

"Subsequently, in 1979," recalls Bertone's P.R. man Gian Beppe Panicco, "we developed a new proposal for Fiat — a car that we considered right. It was called the X1/10 and was intended as the X1/9's evolution. Starting with the interior dimensions of the 'big' X1/9, the external styling was completely revised to the immediate pleasure of Fiat. But the project died as Fiat was unable to make a new investment in what was, effectively, an image-building model, not a volume production car." The design was given over to Lancia and became the Monte Carlo, called Scorpion in the U.S.



Above: Cockpit of 1.5-liter X1/9. This is one of the last X1/9's produced. Main photos, top to bottom: Runabout show car. Wedge shape and rollbar were incorporated into production X1/9; 1.5-liter X1/9. Strip at far right, top to bottom: Taillight, cockpit, and wheel of Runabout.



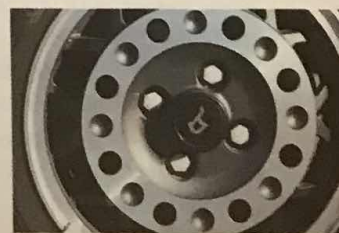
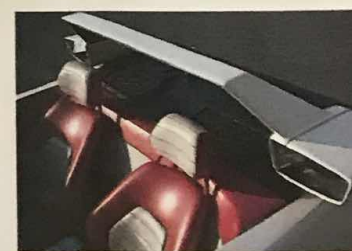


CAPRIE DESIGN CENTER

Bertone's styling center at Caprie seemed the obvious place to sample X1/9s because Bertone's underground garage houses every variety of the model, from show car to one of the last X1/9s produced. Even under a tarp in the dark garage area, the Runabout show car is unmistakable, and nearby are a couple of its descendants, which will soon be sitting outside in the sunlight.

Among those descendants is an immaculate, as-new example of an American-spec 1.5-liter X1/9, one of the last ever built, with only 36 miles on the clock. Then there's the enlarged prototype version and the aluminum prototype, identical to the standard car. There are other X1/9 models stored elsewhere, but those on hand make for a nice family snapshot along with a privately owned rally prototype which is expected to join us later in the day. First into the light is the Runabout, squatting low over gumball racing tires, its pearlescent white upper coachwork glistening. It's hard to believe this car is 22 years old. The Runabout's design strength comes from its utter simplicity. A dash of red down the side demarks the car's upper and lower surfaces and hints at the later X1/9's scalloped sides. The interior tub is a mix of red and white leather and little else: there's the steering wheel, seats, gearlever, a wand for the indicators, and that's it.

Regrettably, hopes of a test drive spluttered along with the engine's attempts to fire. A show car of such intrinsic value doesn't get regular use through the decades. Now only three of the Runabout's four cylinders seem inclined to fire.



LIKE A VIRGIN

Not to despair, for waiting in the wings is that low-mileage X1/9. The white car is both unused and unruined. The interior on the later versions was significantly improved over the earlier ones, but still doesn't rank as an ergonomic triumph. There's a nice, leather-bound steering wheel of good proportions, but behind it is a rectangular instrument binnacle that is both dated and ugly. The indicator and other stalk controls are angular and uninspired, too. A shorter gearlever knob would be more in keeping with the car's style, although the tall lever's proximity to the wheel helps in shifting.

The X1/9 fires quickly and cleanly, and soon settles to a gruff tick-over. The single

overhead cam engine revs freely, if a little riotously. But the criticisms concerning a lack of power that were aimed at the original 1.3-liter X1/9 can also be leveled at this catalyst-equipped 1.5: the bigger engine's added power can't compensate for the 88 lbs. the car gained over the 1.3 model. Even with the bigger engine, the X1/9 is still underpowered.

But with the targa panel tucked away, Bertone's evergreen sports car is ideal for assaulting the nearby mountain roads. The X1/9's tach needle hops upwards with enthusiasm, despite the engine's relative lack of running-in exercise. The X1/9's suspension set-up is standard fare, consisting of MacPherson struts all round, linked at the front to lower wishbones and at the back to semi-trailing lower wishbones. The ride is smooth, and road irregularities are absorbed in graceful silence.

We quickly climb into the mountains, punting around zigs and zags that would have required first gear and permanent pressure on the horn to negotiate in current Fiat micros. There's so little to the X1/9 that you can enjoy a sense of intimacy with the car. There isn't the physical bulk of a larger supercar, and this encourages precision. Steering is sensitive and accurate at all speeds.

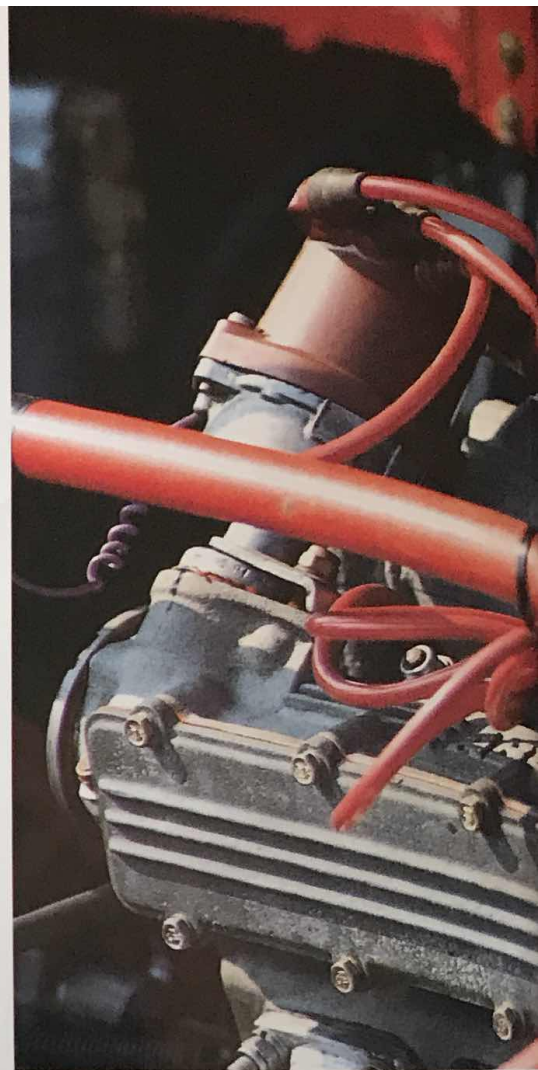
The controls are light, direct, and easy to use. The seating position is low and in addition to providing intimacy with the road, it also offers good visibility. The steering wheel position is excellent, with good height and rake, the body structure is free from cowl shake, and the cabin has no rattles.

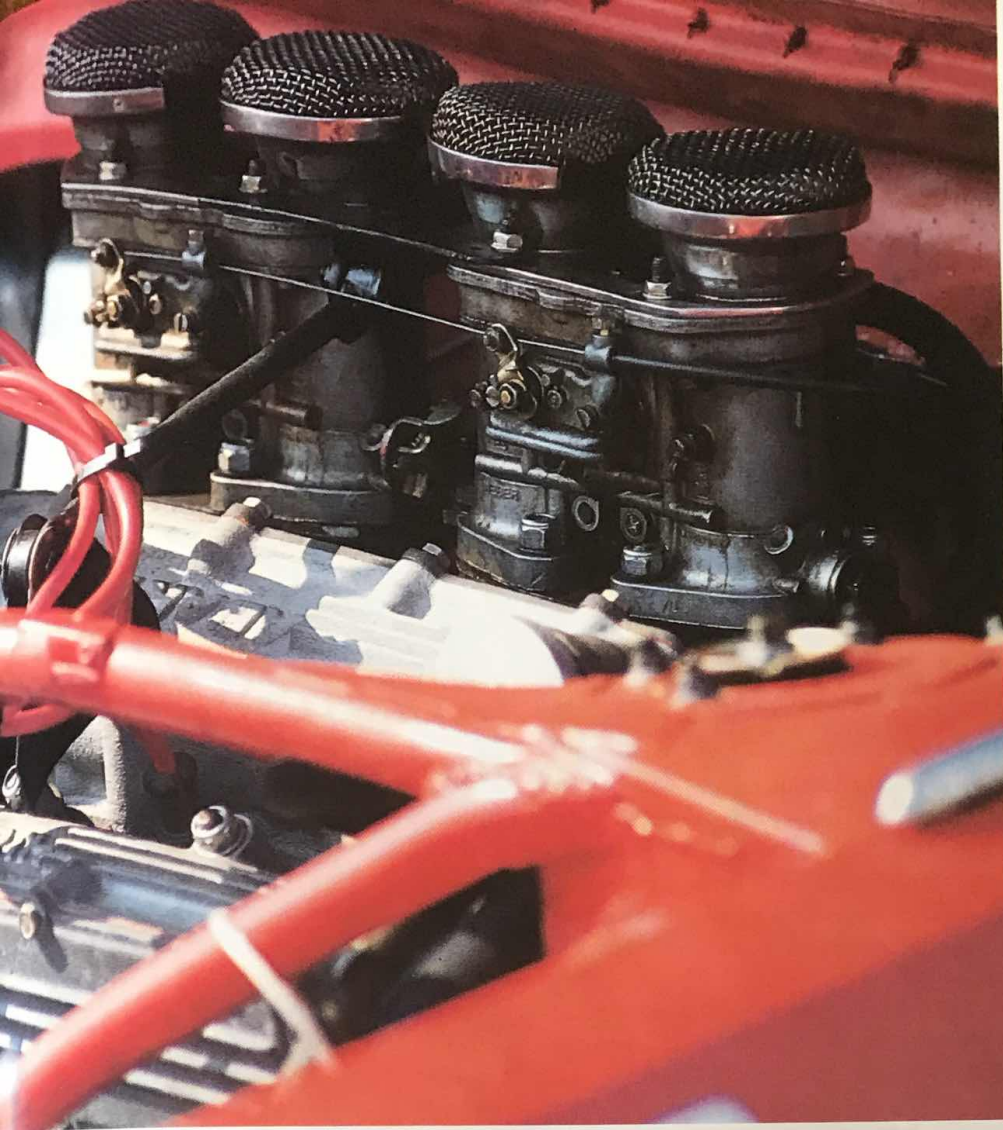
Like the Lancia Stratos, the X1/9 is not a long-haul cruiser. But it also has a chassis that could easily absorb a lot more horsepower, which explains why many European enthusiasts have opted to install Fiat's 2.0-liter twin-cam in place of the smaller engines. And it also explains why modified X1/9s still reign supreme on the Italian slalom circuit.

At normal speeds, the X1/9 corners neutrally, obedient to the will of the driver. The compliant suspension allows the car to roll when negotiating slow-speed bends, but the transfer of weight to the offside is progressive. Understeer is mild with the power on in tighter corners, but in faster bends the tail end gets fidgety. The rapidity with which the chassis snaps into oversteer limits the car's capabilities. When you arrive at the car's handling limits, correction can be tough if the steering wheel



Above: Abarth X1/9's cockpit. Main photos, top to bottom: Abarth rally engine produced 200 bhp. Engine was taken from Abarth 124 rally Spider; The Abarth rally car. Note huge air intake, wheel flares. Car can match section times of modern rally cars under some conditions. Far right: Abarth is fitted with huge lights.





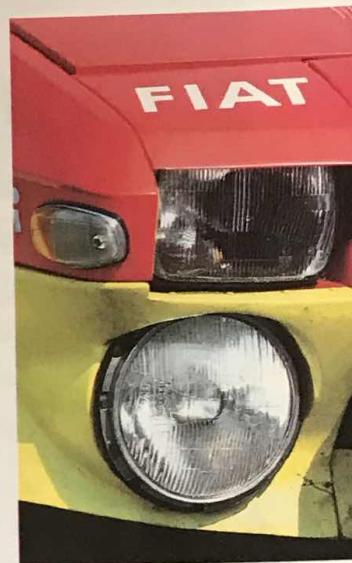
isn't turned quickly to bring the tail back into line.

FIAT ABARTH X1/9 PROTOTIPO

Gino Macaluso owns a pretty exclusive selection of rally machinery. Four precisely restored objects form his collection: an ex-East African Safari Rally Lancia Fulvia HF; Fiat 124 Abarth Rally that finished second at the Acropolis in 1973; the X1/9 Prototipo pictured here; and a Fiat 131 Abarth that took part in several major races during the 1979 season. Why only rally cars? Macaluso was a co-driver on the Fiat works team. After retiring, he spent years tracking down an example of each of Fiat's rally queens.

The X1/9 Prototipo underwent a two-year restoration by former Abarth men who followed original Abarth documents. Research discovered that the car was the Clay Regazzoni/Gino Macaluso entry in the 1974 Giro d'Italia.

Like the other two Fiats in Macaluso's collection, the Abarth X1/9 is a Group 4 car. Group 4 meant construction over a two-year period of just 400 examples of series-derived vehicles. In addition, extensive modification was allowed. The idea of developing a rally version of the X1/9 came early in the 1970s. A 1.6-liter motor was originally planned, but once the 124 Abarth Spider project was under way, it made more sense to slot in the 124's four-valve 1,840cc twin overhead cam engine. The X1/9 rally car first appeared at the Sicilian Rally in 1973, but retired. Over its year or so of activity it battled honorably, securing a couple of important wins before being put out to pasture. The X1/9's mechanicals were too closely related to the Lancia Stratos' and pressure from the Lancia team meant that development stopped after only a handful of prototypes were built. It is believed that all but this remaining example were cut up and destroyed by Bertone.





Above: At Bertone's design center outside Turin. Runabout is up front, then rally car, 1.5-liter car, and enlarged or "big" X1/9, which led to the X1/10, the Lancia Scorpion.

TEST DRIVE

The Abarth X1/9 is a little monster which differs radically from production versions. Aggressive aluminum wheelarch flares, an enormous engine-cover-mounted "airscope," a ducktail rear spoiler, and a warpaint color scheme are the most powerful visual features. Then there are soup-bowl-sized supplementary lights and frowning fixed headlights in place of the usual pop-up units. The roof is closed with a panel that's riveted in place, which adds rigidity. Two box airducts are added on the rear fenders while doors, rear engine cover, and front hood are all made of fiberglass. The Abarth knocks nearly 300 lbs. off the dry weight of the standard 1.3-liter car. The final visible changes are tubby slicks and a low ride height.

The 200 bhp engine drives through a five-speed crashbox and an 80-percent limited-slip differential, all of which have been squeezed in without need to cut any chassis metal. No extra crossbracing has been built in, but the cockpit does include a rollbar. In practice, the "airscope"

caused serious turbulence around the carburetors. Airflow proved a major challenge at the front of the car as well and the front hood, with its large grilled air intakes, covers a complex of tubes directed at eliminating hot air from the cockpit and engine bay.

The front suspension set-up is essentially the same as on ordinary X1/9s, retaining MacPherson struts, co-axial springs, and lower wishbones, but the track has been widened by the insertion of spacers between the monocoque mounting points and the suspension arms. A thicker 21mm anti-roll bar is added, and Abarth's own adjustable shock absorbers sit in the springs. At the back, a 12mm anti-roll bar is used, the shock absorbers are mounted on silentbloes, and all the suspension mountings are adjustable.

The cockpit is decidedly businesslike, decked out with tight bucket seats, an Abarth steering wheel, and a dashboard that reflects the car's racing purpose. The only major dial is the tach, which keeps company with other pressure and temperature gauges. There is no speedo. The starter is one of a series of unlabeled black knobs and buttons on the center tunnel.

HULLABALLOO

And what a hullabaloo is let forth as the engine fires. Decibels and vibrations jostle for the upper hand. The steering is heavy for such a small car but, predictably, it lightens with speed. Still, shopping trips were never part of the car's intended use.

First gear sweeps up to 43 mph, and the

engine's power is most noticeable while negotiating town traffic on the way to our photo location. The clutch is light, but take-up through the dry single plate is abrupt, so it's necessary to ride it continuously in town. The brake pedal is hard under the ball of your foot. Shifting while the gearbox oil is still cold is slow and sticky, but once the oil is warmed up the gears slot neatly into place with a short, clean movement. The big Webers are distinctly grumpy when cold, spending much of their time gasping, snapping, and snarling. At 4,000 rpm, power becomes smoother and more progressive as the Webers clear. You can literally hear the fuel being slurped as the secondary chokes open. This is not a tractable engine. Dipping under 4,000 douses the fire, but once worked up the engine is as eager and nimble as any twin-cam.

Macaluso's mechanics are still working on an ideal suspension set-up, and the imperfect road surface in town had us bouncing over any irregularities. The ride levels once a higher cruising speed is reached, but I wonder how it would perform over a typical unpaved rally section. Certainly the suspension's limited travel seems more appropriate for the race track, a point proven later when, in tight curves, the inside rear tire hoisted itself off the ground, spinning away the 20 percent torque still being transmitted to it by the limited-slip differential.

Opening the throttle reveals a wicked side to the X1/9's nature. Acceleration is fierce and is accompanied by a shrieking exhaust note. Even on flat tarmac, the steering's quickness translates into nervous, dart-like movements. The immediacy of the chassis is alarming at first, but with time that thin line between control and the abrupt loss of adhesion can be established.

Every short-lived prototype is intriguing because it leaves an important question: is this an uncrowned champion or just another development project? Technically, the Rally X1/9 has to be an uncrowned champion. The mechanics who followed Macaluso on the classic Targa Florio and San Remo Rally, where the car acted as host pace car, know just how good the Abarth is. During early testing it equalled modern times over some of the rally stages. It's too bad there's not room enough in the Fiat empire for more than one rally marque. The X1/9 may have ceased to be a real contender, but its potential still makes it intriguing. ■