

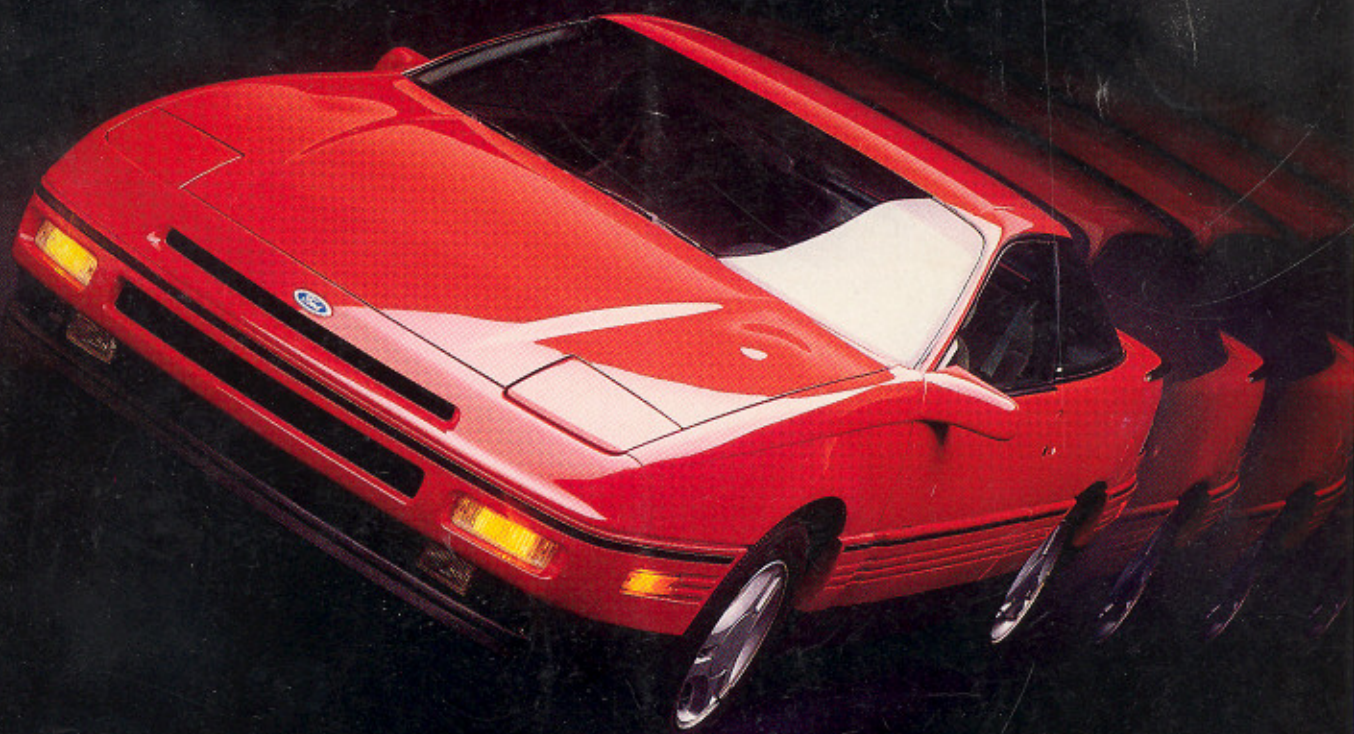
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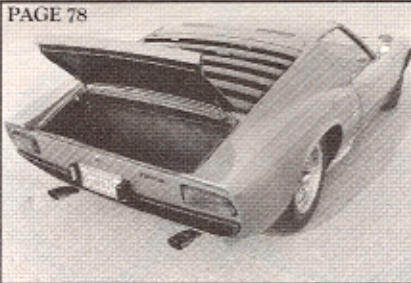
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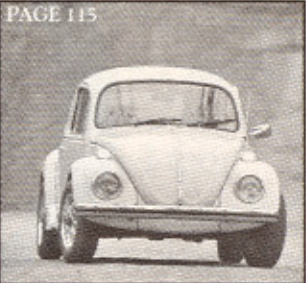
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# Lady in Blue

*Falling in love with Lamborghini's P400 Miura  
on its 21st birthday.*

BY PETE LYONS

• She is old, but she has not aged. Having reached her 21st birthday, she is still one of the most youthful automobiles ever designed. Her achingly lovely body can haunt your dreams. As, in another way, her voice haunts the air. A full mile distant, you can hear her engine clearly. Strapped inside, you can hear nothing else. With your foot to the floor and all twelve bores pulling hard, the interior decibel reading is 99. In most circumstances, so much noise would brush your pain threshold. But in this circumstance, just this once, 99 dBA is a measure of exquisite delight.

Lamborghini's Miura. The epitome of the automobile as art. But this machine is also a landmark: the first big, mid-engined modern sports car designed primarily not for racing but for the open road. The very open road.

There is in all affairs automotive a necessary audacity, but there have seldom been such bold strokes as Ferruccio Lamborghini's. Born under the sign of the bull, he went into car manufacture by no half measures and at no intermediate level. Already a successful industrialist, manufacturing farm tractors, oil heaters, and air conditioners, in 1963 he built an auto plant and in it a grand-touring car. A completely Lamborghini grand-touring car, with its own unique body, its own all-independent suspension, and its own quad-camshaft, high-performance, 3.5-liter V-12 engine. The car soon earned respect for its refinement.

Ferruccio Lamborghini was 47 that year, but his taurine vigor and audacity had attracted young men of talent and ambition. They saw the front-engined car into production in 1964, and the next year three of them, Giampaolo Dallara, Paolo Stanzani, and Bob Wallace, all in their mid-twenties, approached the "old man" about building a racing Lamborghini.

Now, Ferruccio had been raised in a hard-eyed farming family, and he had no intention of pouring his little factory's resources down the racetrack drain. But he did see the promotional value of building a small number of roadgoing Lamborghinis in the most up-to-date racing style. By then the great mid-engine revolution, begun in the late fifties, was complete, and

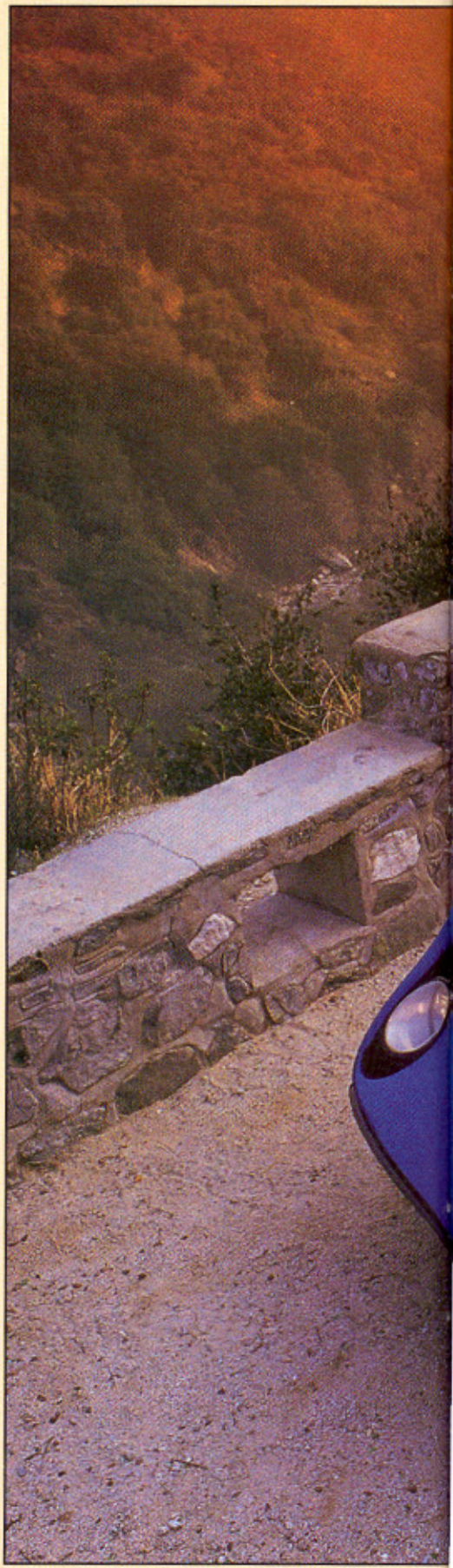
there was no longer any doubt that a competition car of any type and size should carry its power behind its driver. By 1965 Lola, Ford, and Ferrari had built really fast mid-engined racing coupes that could be driven—with determination—on the road; but these "grand-touring prototypes" were racers first and foremost. What Lamborghini's audacious youngsters set about creating was the world's most exciting street car.

Who among car lovers has not dreamed of doing such a thing? How many of us will ever have such an opportunity? The vehicle these itchy enthusiasts created expressed their youthful excitement in every detail.

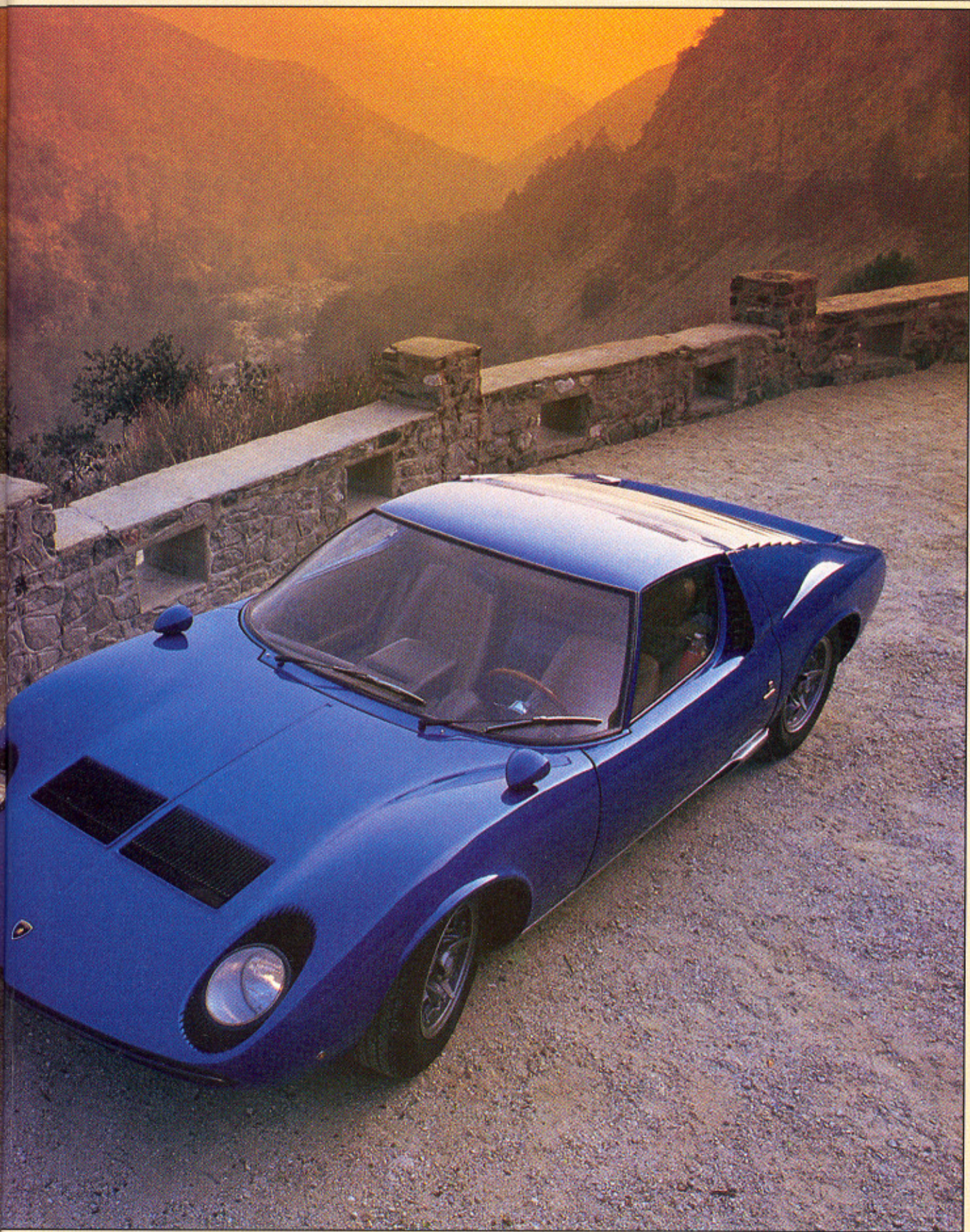
Professional automakers, not mere stylistic dreamers, they built from the inside out: their chassis came first. The V-12 engine, by now grown to 3.9 liters, of course was a given. But how to arrange it? With clutch and accessories it was more than a yard long. Mounting it lengthwise, as in the Ferrari 250LM, would demand an unusually long wheelbase if the driver's feet were not to be cramped between the front wheel wells. The trio considered mimicking a recent Ferrari show car, a three-seater with the driver in the middle. But, pushing the actual hardware around on a tabletop, they hit on a solution at once more practical and more exotic. Measuring only 21 inches across its exhaust-cam boxes, the Lamborghini V-12 would fit neatly sideways.

Such layouts had been seen before, but at the Turin Auto Show in November 1965, the naked prototype chassis with four bristling cam covers and twelve boldly erect carburetor barrels caused a sensation. Four months later, Lamborghini presented a complete prototype at the Geneva show, and it was no less stunning. Primarily the inspiration of Bertone's Marcello Gandini—a 25-year-old—the shape was not only beautiful, it was imaginative, daring, lithe, juicy. The car was compact, light, loud, stimulating, and fast. It was named the Miura, after a strain of Spanish fighting bulls.

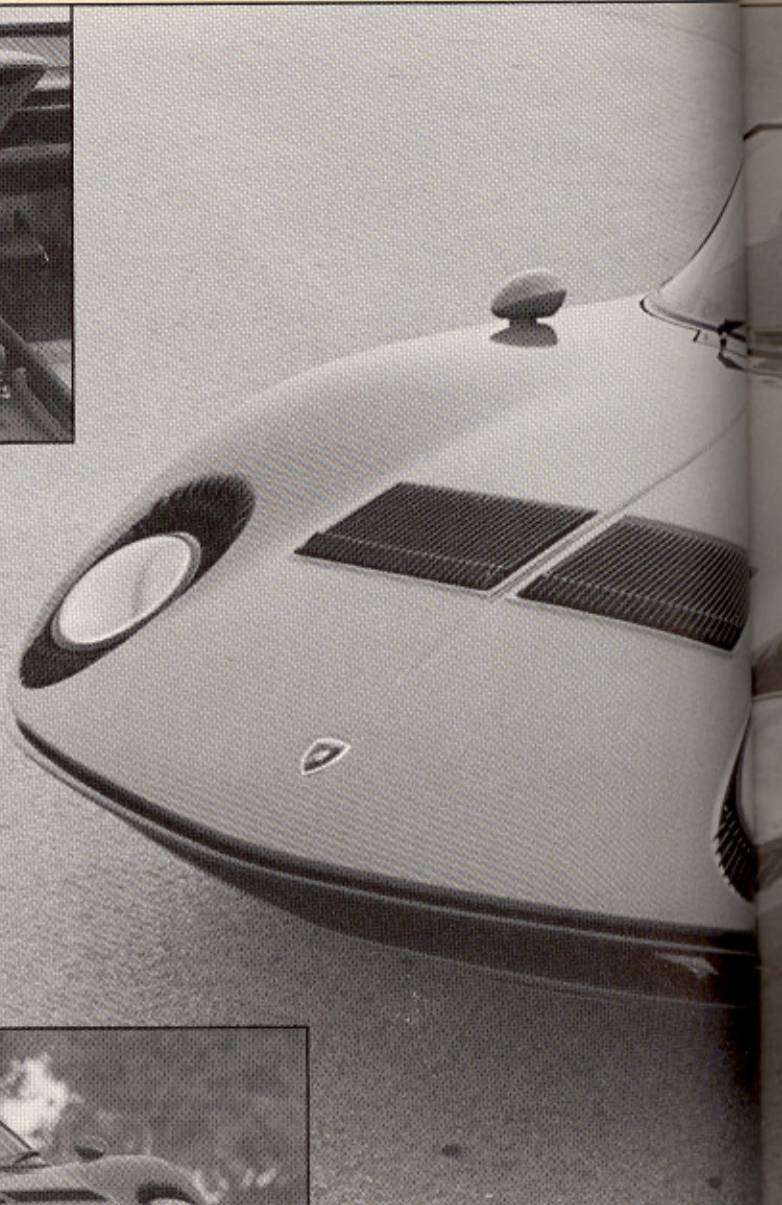
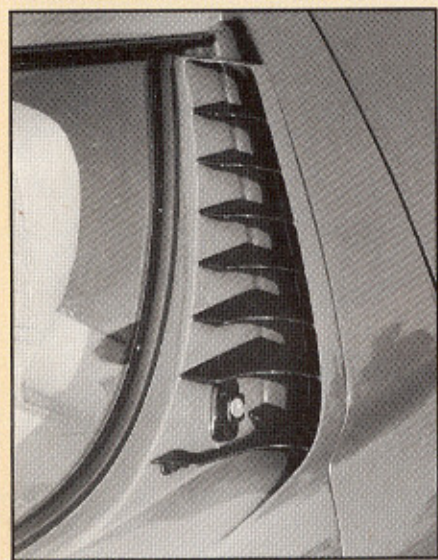
But Messrs. Dallara, Stanzani, and Wallace had a problem. Their supercar was supposed to be a limited-run publicity vehicle, a statement as much of art as of tech-











nology, but suddenly a throng of excited people was waving money. Ferruccio Lamborghini couldn't resist writing up orders on the spot—for a complex new machine that was nowhere near ready for production. Detail development ate up a full year. And even though production was delayed until 1967, the first customer cars weren't really right. But they created a legend about Lamborghini that remains vivid.

Two decades later, we have a chance to examine a representative sample of these epochal machines. To pose the questions: How good were they really? How does the

shadowy Miura legend look under the cold spotlight of today's values—and today's road-test equipment?

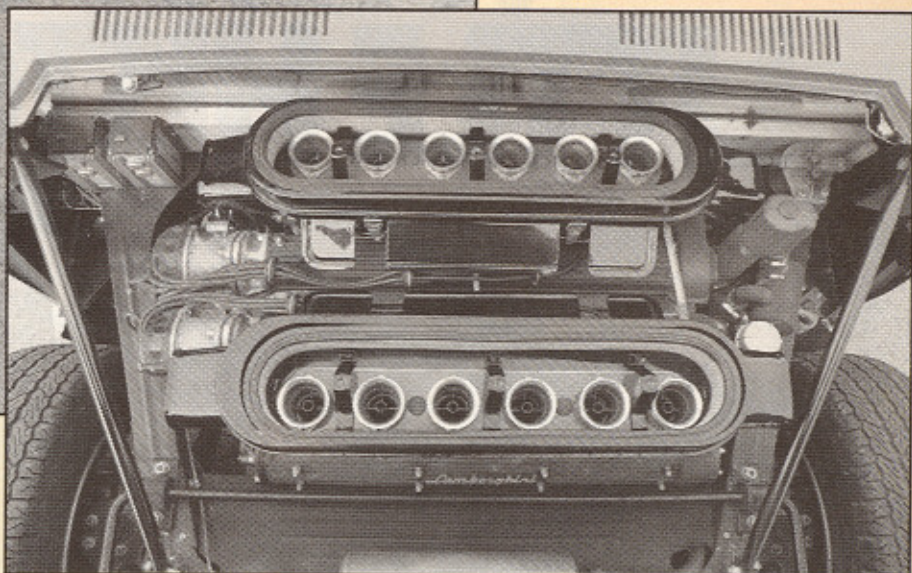
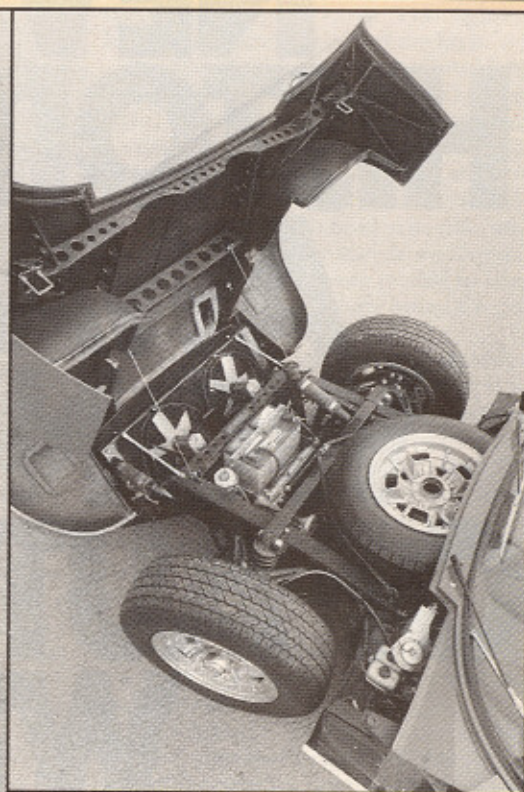
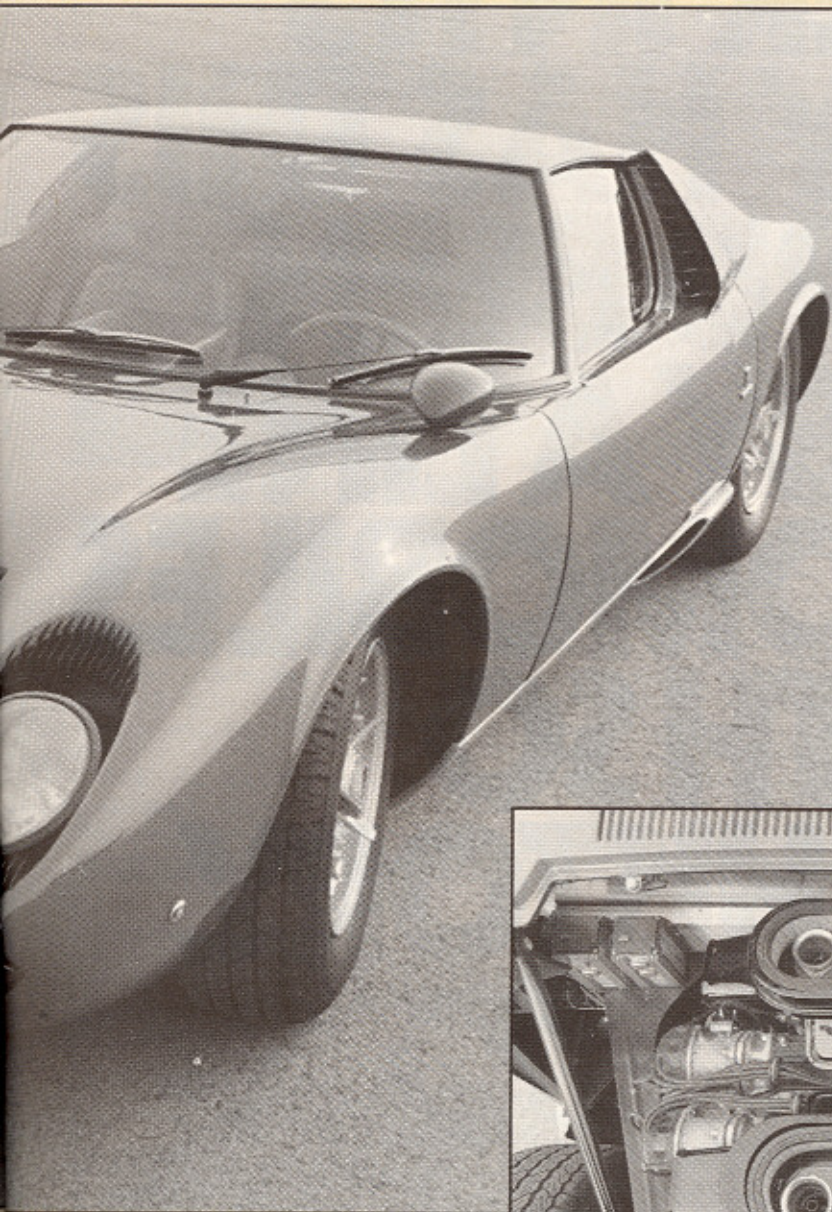
The Miura on these pages is an early one, production number 52, finished on August 30, 1967. (The line extended to number 762 in January 1973.) It went directly to an American architect, who for several years drove it as it was meant to be driven, on long, high-speed recreational runs across Nevada. But in 1981, when the mighty V-12 finally tired, and the repair estimate was drawn up, the car passed to its present owner, Ruth Sanders. She and her husband, Frank, along with their sons,

Dennis and Brian, operate a diversified aviation business in Chino, California. Among other things, Frank Sanders Aviation built *Dreadnought*, the 4000-hp, 450-mph Hawker Sea Fury that has twice won the National Championship Air Races in Reno (*C/D*, March 1986). Ruth's menfolk accepted her worn-out Lambo as a challenge and spent several months of 1982 restoring and, in some ways, improving it.

First question: How does the world's first large mid-engined street-car design work out ergonomically? Answer: Surprisingly well, with a few quirks.

Miuras are known for tight interiors, where even an average-size driver is conscious of his intimacy with the roof, the windshield, and the pedals. But the door-sills are only seven inches wide, so seating yourself is a conventional maneuver, and the pedals are dead straight ahead in a vast, eighteen-inch-wide footwell. The an-





gle of the clutch-pedal stalk leaves plenty of room for a relaxed left foot—though, oddly, there is no dead pedal. The throttle pedal is so upright that it seems to bend backward; on a long cruise at U.S. highway speeds, it's literally a pain. The passenger's shoulder, though, is comfortably remote.

Visibility to the front is superb, and the A-pillars are so slim that the one near the driver's eyes all but disappears. Visibility directly to the rear—and this is a car that creates situations to its rear—depends on how much sunlight is glinting off the louvers. To the rear quarters there is no visibility—and because the eye point is on a level with the bottoms of the windows of, say, Hyundais, the driver of the Miura can feel hemmed in by dense traffic.

The weather during our test ranged from mild to cool, so we did not experience the well-known hothouse effect of

the Miura's glassy cockpit.

Second question: How well does this historic vehicle work?

Any mid-engined layout yields mixed benefits. Miuras are about 800 pounds heavier than the factory claimed—our test car weighed 2880 pounds—but the front tires carry only 42 percent of the weight, and by choosing a low rack-and-pinion ratio Lamborghini avoided power steering. Good. Not so good is the gear shifting. The transverse transaxle lies behind the engine, and the first thought of the Miura designers was hydraulic actuation. They abandoned that plot for an elaborate mechanical linkage running right through

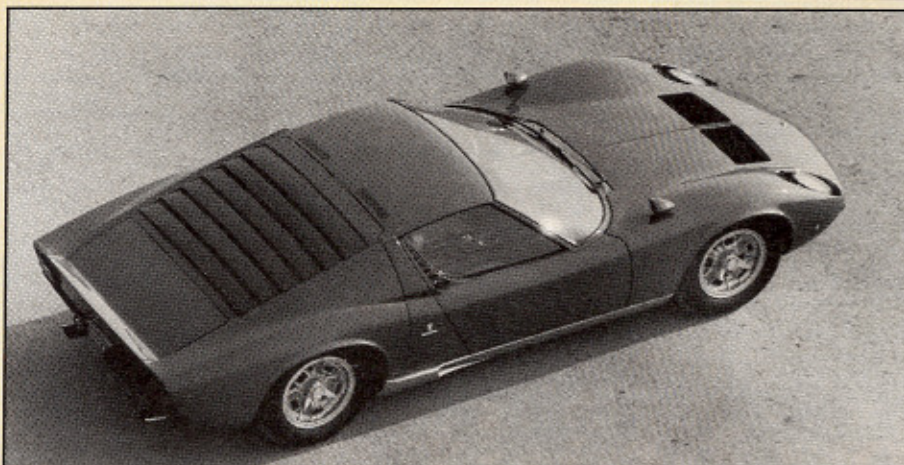
the crankcase. It works, and works better the harder and quicker you use it, but it's always stiff. If the featherweight Toyota MR2 shifter is your ideal, the Lamborghini's will not please you.

Also, in the test Miura at least, shifting into gear while the car is sitting still is difficult. Frank Sanders advises engaging first gear as you roll to a stop and keeping the clutch pedal in while you wait. At other times, the clutch effort doesn't seem heavy.

Muscle is also required on the middle pedal. The only brake servo is your own adrenaline.

Are your adrenals in good condition?





They'd better be. Behind your ears looms the very definition of motorsport. The Lamborghini engine is magnificent, delightful, perfect, an uncanny blend of savagery and civility. It trickles along sweetly in traffic at idle rpm, yet it responds to the throttle with the instant *whing* of a superbike engine, and its power builds like the long, smooth slope of a volcano. The Lamborghini V-12 is an engine to live for.

No, it's not quiet. If it were, how would you be able to enjoy that gorgeous, splendid, strong, raspy, raucous, metallic, hol-

low, whining, moaning, roaring, shrieking, wonderful *noise*?

Through the fine, fourteen-inch, wood-rimmed steering wheel, the road surface streaming beneath your heels keeps up a light dialogue with you, in a language 911 owners know. There is little kickback, but there is a slightly sticky feeling—both effects presumably the work of the steering damper. Also Porsche-like is the behavior of the rear suspension: lifting abruptly off the throttle in a hard turn will bring the tail right out. On a moderately bumpy, curvy road the Miura is a busy car, a bit

darty, even slightly karty. This fighting bull wants a tender touch at the limit.

In a straight line, gross variations in the power setting cause little veers to left and right, while the steering seems to need constant delicate corrections even at steady-state cruise on a smooth surface. Up to about 100 mph the Miura feels good, seems in fact to revel in its easy, athletic canter. At higher speeds we found it nervous, though we were unable to confirm (fortunately) the early Miura's reputation for flying its front end.

Although the factory credited the Miura with 350 DIN hp at 7000 rpm, Bob Wallace, who now owns a Ferrari service business in Phoenix, told us that the true output of the early cars was no more than 320 hp at 7200. And for some reason—faded valve springs? modern gas?—our test car's absolute rev limit proved to be an indicated 6500. This seemed to have no effect on our acceleration times, which included a sparkling 5.5 seconds from 0 to 60, but our recorded top speed was certainly 10 and possibly 20 mph under the car's potential.

The Miura's performance on the skidpad surprised us so much that we repeated the test. It's true: this two-decade-old vehicle on narrow, 70-series tires whips around at 86 percent of gravity. But



## To Please a Lady

### Making a Miura better.

• "Ruth and I went over to look at an old race car I was interested in. I didn't buy it, but while I had my back turned Ruth bought the Lamborghini. A basket case. I don't take her shopping anymore."

Frank Sanders may be trying to make his wife the heavy of this tale, but she knows her menfolk well. They can't keep their hands off of interesting machinery. At Frank Sanders Aviation her men do "everything in aviation that nobody else does: air shows, air racing, air-

craft restoration, movies, flight-test work, smoke generators for aerodynamic research... everybody in the family flies."

The aviation business allowed no time for Ruth's Miura for several months after she bought it, but then Frank broke an ankle while riding a dirt bike. For something to do until he could clamber over airplanes again, he dug into the car's elaborate unitized engine and transaxle. "The mechanic who'd

taken it apart told me I'd never be able to get it back together. Because I wasn't Italian. Well, that was a challenge..."

Not only did Frank reassemble the thing, he improved it. (The audacity!) The oiling system is better in several ways, and the clutch and throttle mechanisms work more smoothly. In addition, by attaching manometers to the four triple-choke Webers and repeatedly reading the plugs, Sanders has been able to get the carburetion so sweet that his wife's car often serves as an object lesson at Lambo-club meets. "I was told I couldn't get the carbs right, because I wasn't Italian. You know, the Miura is like a lady with a bad reputation. If you just take the time to work out a few problems, she's really fine."

While Frank worked on the engine, his son Brian rebuilt the suspension, incorporating the stiffening members at the rear that the factory added to the later S model. Finally Ruth's men repainted the aluminum body, using polyurethane aircraft paint in the same shade of blue as the original, compounded it to glassy perfection, and powder-coated the black chrome, which had been so startling in 1966.

"The whole job only took about five months," says Frank. "Heck, restoring a car is nothing compared to an airplane."

—PL



while doing so, it unports its single, central oil-sump pickup and loses pressure; while doing so to the left, it loses engine oil from the right-side breather.

As one observation succeeded another, there grew in our minds a fuller appreciation of what it means to combine innovation in technology with all the shadings and caprices of a deliberate work of art.

Example: There is a massive, heavy-machinery feel in the shifter, yet the lever is topped by a small, elegant handle of fine wood with delicately carved finger notches in its forward side. The whole car is crafted of such *contrappunti*.

Main question: Do you want one?

Sure. Of course. Naturally. No question. But.

The Miura is not a car for everyday use. It is fragile. It is finicky. It is expensive. It can be driven gently, even reasonably quietly, but driving such a car in such a way seems *immoral*. They didn't build the Miura to race, but they put a lot of racer into it. Like a high-performance motorcycle, this car requires concentration. It demands your whole attention. You don't jump in for a restful cruise, listening to the radio as you go. The only sound system is connected to your right foot.

Nor is it a car for today. Look at it: it's naked. No bumpers. No door beams. (No rain gutters, either.) No shoulder belts. No emissions controls. No *cruise control*. In its innocence it is charming, but it is also wearing. Alas, the Miura was born in a distant time, and for another place.

Ah, but watch as the liquid light pours over her, so pretty it actually hurts. What sweet contrasts it reveals: her sensual, soft skin, her muscled wheels. *Contrappunti!* How lovely she is. How young.

In such a light, she is perfection. ●

Vehicle type: mid-engine, rear-wheel-drive, 2-passenger, 2-door coupe

Price as tested: \$21,000 (1967)  
\$80,000 (estimated, 1987)

#### ENGINE

Type ..... V-12, aluminum block and heads  
Bore x stroke ..... 3.23 x 2.44 in, 82.0 x 62.0mm  
Displacement ..... 240 cu in, 3929cc  
Compression ratio ..... 9.8:1  
Carburetion ..... 4x3-bbl Weber 40IDL 3C  
Emissions controls ..... none  
Valve gear ..... chain-driven double overhead cams  
Power (factory rating, DIN) ..... 350 bhp @ 7000 rpm  
Torque (factory rating, DIN) ..... 279 lb-ft @ 5000 rpm

#### DRIVETRAIN

Transmission ..... 5-speed  
Final-drive ratio ..... 4.09:1  
Gear Ratio Mph/1000 rpm Max. test speed  
I 2.52 7.6 49 mph (6500 rpm)  
II 1.74 11.0 72 mph (6500 rpm)  
III 1.22 15.6 102 mph (6500 rpm)  
IV 1.00 19.1 124 mph (6500 rpm)  
V 0.82 23.5 152 mph (6450 rpm)

#### DIMENSIONS AND CAPACITIES

Wheelbase ..... 98.4 in  
Track, F/R ..... 55.6/55.6 in  
Length ..... 171.7 in  
Width ..... 69.3 in  
Height ..... 41.5 in  
Ground clearance ..... 5.1 in  
Curb weight ..... 2880 lb  
Weight distribution, F/R ..... 42.4/57.6%  
Fuel capacity ..... 23.8 gal  
Oil capacity ..... 11.6 qt

Water capacity ..... 15.9 qt

#### CHASSIS/BODY

Type ..... full-length stamped-steel chassis bolted and riveted to body  
Body material ..... formed aluminum

#### INTERIOR

SAE volume, front seat ..... 45 cu ft  
trunk space ..... 5 cu ft  
Front seats ..... bucket  
Seat adjustments ..... fore and aft  
General comfort ..... poor fair **good** excellent  
Fore-and-aft support ..... poor fair **good** excellent  
Lateral support ..... poor fair **good** excellent

#### SUSPENSION

F: ..... ind, unequal-length control arms, coil springs, anti-roll bar  
R: ..... ind, unequal-length control arms, coil springs, anti-roll bar

#### STEERING

Type ..... rack-and-pinion with hydraulic damper  
Turns lock-to-lock ..... 3.6  
Turning circle curb-to-curb ..... 36.7 ft

#### BRAKES

F: ..... 11.8 x 0.5-in disc  
R: ..... 12.0 x 0.4-in disc  
Power assist ..... none

#### WHEELS AND TIRES

Wheel size ..... 7.0 x 15 in  
Wheel type ..... Cromodora cast magnesium, knockoff hubs  
Tires ..... Pirelli Cinturato HS CN12, F: 215/70VR-15; R: 225/70VR-15  
Test inflation pressures, F/R ..... 29/34 psi

## CAR AND DRIVER TEST RESULTS

#### ACCELERATION

Seconds  
Zero to 30 mph ..... 2.3  
40 mph ..... 3.1  
50 mph ..... 4.1  
60 mph ..... 5.5  
70 mph ..... 6.8  
80 mph ..... 9.2  
90 mph ..... 11.4  
100 mph ..... 12.8  
110 mph ..... 15.7  
120 mph ..... 20.5  
Top-gear passing time, 30-50 mph ..... 7.8  
50-70 mph ..... 7.6  
Standing 1/4-mile ..... 13.8 sec @ 104 mph  
Top speed ..... 152 mph

#### BRAKING

70-0 mph @ impending lockup ..... 218 ft  
Modulation ..... poor fair **good** excellent  
Fade ..... none moderate **heavy**  
Front-rear balance ..... poor fair **good**

#### HANDLING

Roadholding, 300-ft-dia skidpad ..... 0.86 g  
Understeer ..... minimal **moderate** excessive

#### FUEL ECONOMY

C/D observed fuel economy ..... 12 mpg

#### INTERIOR SOUND LEVEL

Idle ..... 69 dBA  
Full-throttle acceleration ..... 99 dBA  
70-mph cruising ..... 83 dBA  
70-mph coasting ..... 80 dBA

