

# FERRARI'S DREAMBOAT

*The 166MM Barchetta ("little boat") really put the Ferrari name on the map.*

**BY DAVID E. DAVIS, JR.**



PHOTOGRAPHY BY  
**MARTYN GODDARD**







It was 1947, and World War II was over, leaving Italy deeply divided politically and in dire economic straits. Enzo Ferrari had spent the war years manufacturing machine tools for the Axis war effort and brooding about the car he would build when things returned to normal. Ferrari had become famous between the wars as the man in charge of Alfa Romeo's racing program, and there's little doubt an experimental Alfa V-12 engine from the late 1930s preyed on his mind as a starting point for a new sports car to be called Ferrari. He had encountered V-12 engines in Packards used by the American military in World War I and was impressed by them. But his primary focus was still racing, and it came as no surprise that all of the earliest Ferrari cars and engines were conceived as a means of reestablishing the Ferrari name in motorsports.

In 1940, his newly established company, Auto-Avio Costruzione, had built two blandly good-looking roadsters for that year's shortened version of the Mille Miglia. These bore the designation 815, signifying that they had eight-cylinder engines of 1.5-liter displacement. (Italian numerologists would make much of the fact that 815 was a rearrangement of the model number of Alfa Romeo's enormously successful 158 grand prix cars.) These 815s were essentially rebodied Fiats and had no real bearing on the Ferraris to come. After the war, he built a series of cycle-fendered twelve-cylinder racing cars that predicted the architecture of the 166MM shown here, usually in very rudimentary bodywork. This pioneering effort began with the 125, continued with the 159, and culminated in the 166SC ("Spyder Corsa"), which ran in a number of races large and small and created a growing buzz of favorable publicity which would greatly enhance the upcoming introduction of the Touring-bodied 166MM at the 1948 Turin show.

Two Ferrari 166s were revealed at Turin in 1948, both with bodies by Carrozzeria Touring: a 2+2 berlinetta on a Sport chassis on the Touring stand and a 166MM "Barchetta" roadster on the Ferrari stand. (*Barchetta*, in Italian, is properly pronounced "Barketta.") The model number was logic personified: 166 represented the cubic-centimeter displacement of a single cylinder in the two-liter, twelve-cylinder engine, and MM stood for "Mille Miglia." The name *Barchetta*, "little boat," was conjured up by one of the Italian journalists who first saw the car, most probably Giovanni Canestrini, in reaction to the roadster body's radically different shape—narrow at the bottom, widest at the beltline, and quite high in terms of ground clearance. We've all read about "shots heard 'round the world." The introduction of the Ferrari 166 was a 7000-rpm twelve-cylinder shriek heard 'round the world.

According to Luigi Chinetti, Ferrari's legendary North American importer, he bought that Turin show Barchetta (serial number 0002 M, engine number 022 I) and immediately resold it to California Cadillac dealer Tommy Lee. The car shown on these pages (serial number 0006 M, engine number 0004 M) was originally sold by the factory for 2.95 million lire to Giovanni Vaccari of Milan. The car was assigned Milan license plate MI 131231 on June 13, 1949, and was driven in the 1951 Mille Miglia by Eraldo Stoppioni and Nello Bartolini bearing number 354, but it failed to reach the finish line. It has passed through a dozen owners' hands in the years since, winding up in the collection of Bud and Thelma Lyon, two longtime friends of *AUTOMOBILE MAGAZINE*. (Our own Mrs. Jennings co-drove the 1995 Tour de France with Bud Lyon in his BMW 507. Bud and Jean were willing, but the 507 suffered a series of vapor locks, and the Lyon/Jennings effort went for naught.)

Factory records suggest that Touring built twenty-three 166MM Barchettas. Some of these were later rebodied by other *carrozzerie* as berlinettas or spyders, and several were upgraded with larger and more powerful engines from later Ferrari sports cars. The same records show that about ten of the earliest cars were fitted with the cycle-fendered SC bodies. And, of course, almost every one of the recognized Italian coachbuilders tried its hand at the 166, but the Touring-bodied version is the one that made history and remains the most desirable. According to Carlo Felice Bianchi Anderloni, who inherited control of Carrozzeria Touring from his father in June 1948, "The color, too, was specially devised by Touring and continued to characterize almost all official Barchettas. You started with a flame red which was then metalized slightly, and you then got the very warm pink color which distinguished all Barchettas built for racing. The upholstery of these cars was always vivid sky blue." The Barchetta shape was much admired around the world and frankly copied in cars that built legends of their own. John Tojeiro built a Tojeiro Bristol racing car that was instantly recognizable as a Barchetta clone. Then the Tojeiro Bristol was copied by the AC people when they developed the AC Ace, which became the AC Bristol, which became the basis for the (AC) Shelby Cobra, which is still being produced in places as far apart as Las Vegas and Poland and South Africa.

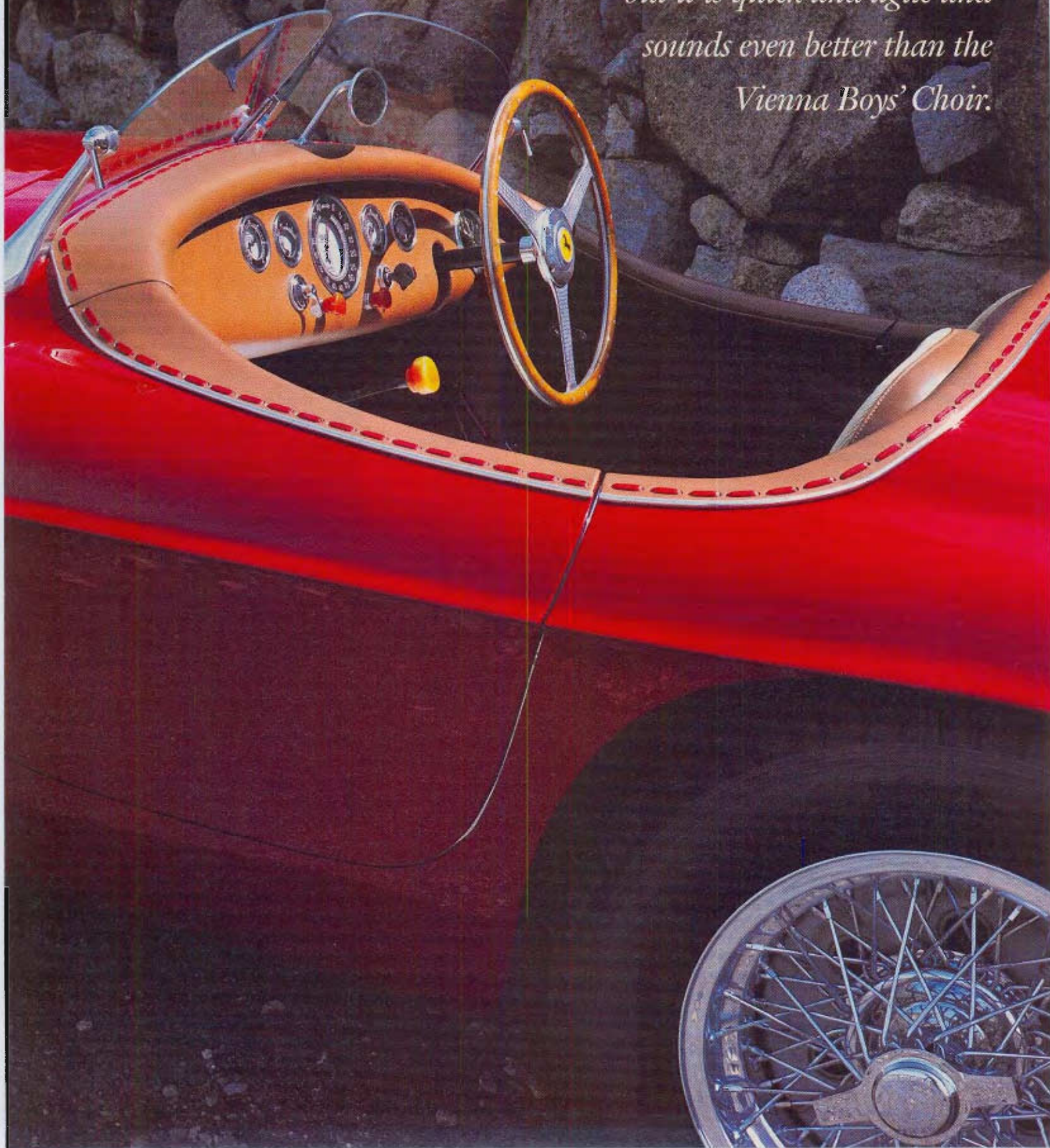
Bianchi Anderloni's counterpart on the engineering side was Gioachino Colombo, who in his remarkable career laid claim to designing more than 100 engines, none more famous than the original Ferrari V-12. Colombo was on leave from Alfa Romeo in the summer of 1945 when Ferrari hired him on a consulting basis to design a 1500-cc V-12-powered sports car, the Tipo 125. Since Ferrari had no design office at



**OPEN VIRTUES** The interior is a tight fit. The time-of-trip clock (left) is in keeping with competition history. The stitched cockpit is a 166MM Lusso hallmark.



*The Barchetta does not overwhelm with  
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sounds even better than the  
Vienna Boys' Choir.*





# Design Analysis by Robert Cumberland, Automotive Design Editor

One of the most charismatic sports car shapes ever, the Barchetta design was much copied (Tbjeiro, AC) and morphed into lovely closed coupes for the Mille Miglia by Touring itself. The basic forms lasted for more than five years and were adapted to Ferraris with engines as big as 4.1 liters, although most were

166 (1995 cc) and 212 (2562 cc) chassis. Making their bodies was actually a chore for Carrozzeria Touring, because orders were so irregular and each car was slightly different from previous models. They were all tiny, and tall drivers were half outside the cockpit.



**Hard line** from front wheel opening aft shows Touring craftsmanship, looks great.

**High, crowned rear deck** allows cut-down doors with full, flowing body lines.

**Flat-glass windscreens** can be folded.

**Hood scoop** clears three Webers.

**Characteristic "mustache" line** used on other Touring bodies.

**Metal rolls** around entire cockpit. On Lussos, laced leather gives a finished look.

**Cockpit sides** cut down for elbow room.

**Headlamps** placed very low, allowing upswept fender profile.

**Little crease** on hood recapitulates single-seater lines.

**Proportions** of the egg-crate grille determined by radiator size, not style. Polished trim bezel is unusual; most had no trim.

**From this angle,** aerodynamic efficacy of low lamps is apparent.

**Hood** is high, barrel-shaped, very much like single-seaters.

**Steering wheel** is placed very high, close to driver's chest.

**Fade of hard style line** another example of Touring's exceptional metal-forming skill.

**Taillights** close to center on this 1949 model, worked into rear fender tips on others.

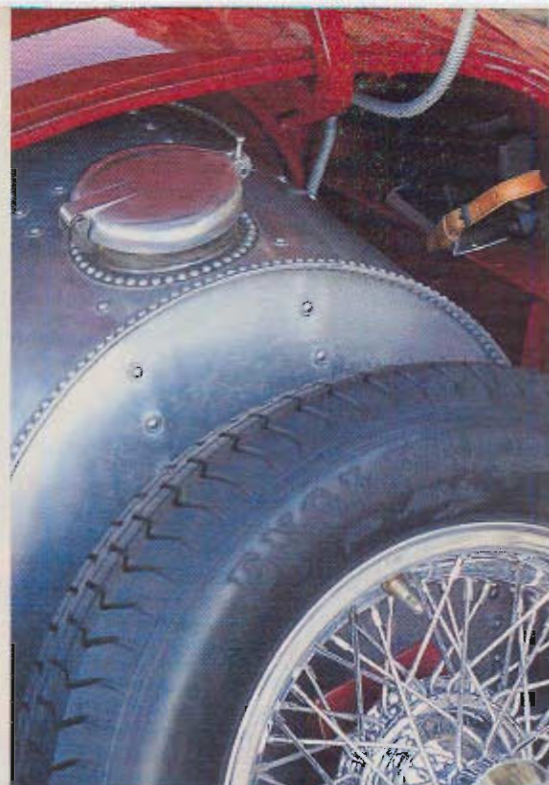


**Ah, Borrani!** Wire wheels are strong part of style, but these are concours-bright, not the way the cars were raced, rather spoiling the look.

**Bottom of body** only slightly lower than wheel center, leaves a lot of chassis uncovered, exhausts apparent.

**Austere metal instrument panel** shows racing intention for the two-seat Ferraris.

**No external fuel caps;** tank is filled inside trunk.



**PURELY FUNCTIONAL** The trunk houses the spare wheel, the jack, and a massive 26.4-gallon fuel tank.

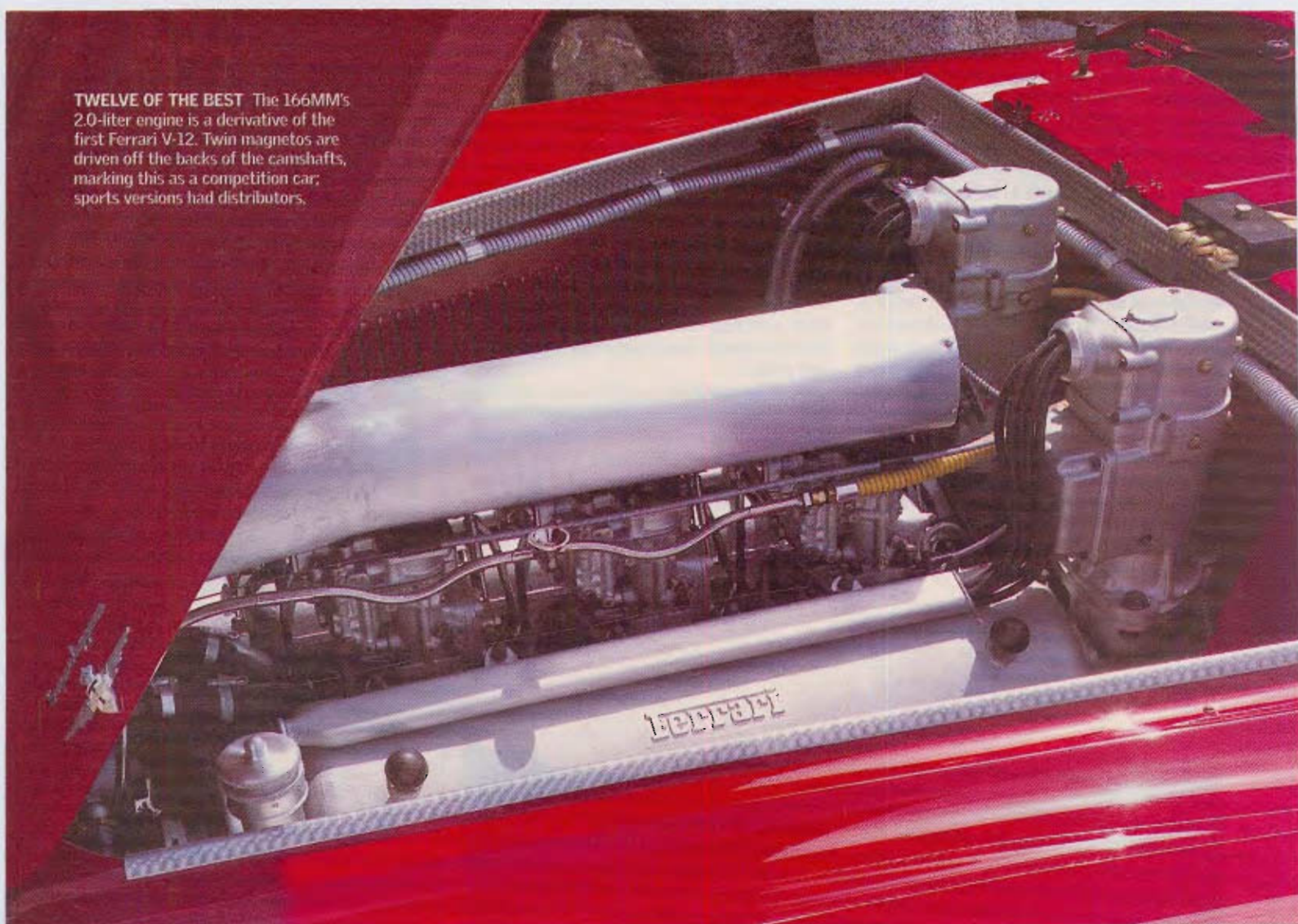


that time, Colombo worked in a bedroom in his temporary Milan apartment. He later reminisced that the cylinder-head design and the critical location of the spark plugs were worked out at a table in the garden of his sister's villa, where he'd been invited for lunch. We're told that Colombo was neither a math wizard nor a lofty theoretician. He was a racing engineer, long accustomed to solving problems on the spot with Enzo Ferrari in the Alfa Romeo racing organization. Much of his work was cut-and-try, and some ideas arrived as knock-your-socks-off epiphanies. In that capacity, he, too, was familiar with Alfa's prewar experiments with V-8 and V-12 engines.

The engine that came out of Colombo's spare bedroom was a single-overhead-cam, 60-degree V-12. Originally displacing 1497 cc with only 72 horsepower, it grew to two liters and 160 horsepower over the next eighteen months. It was so good, and so robust, that it continued to power Ferrari sports and GT cars for almost twenty years, up to and including the 330s of the late 1960s. The Bud Lyon 166MM Barchetta was built with a version delivering 140 horsepower at 6600 rpm. The bore and stroke are oversquare at 60.0 x 58.8 mm—the shorter stroke reduces piston speed while the wider bore



**TWELVE OF THE BEST** The 166MM's 2.0-liter engine is a derivative of the first Ferrari V-12. Twin magnetos are driven off the backs of the camshafts, marking this as a competition car; sports versions had distributors.



provides room for larger valves. The cams are driven by triplex chains, and each cam drives one of the dual fuel pumps. The 60-degree inclined valves are closed by hairpin springs, and the view with the cam cover removed is quite impressive. The camshaft drive also drives the water pump and the generator. Three Weber 32DCF twin-choke downdraft carburetors stand in the trough between the alloy cylinder heads. The chord struck by the combined notes of intake and exhaust is unforgettable.

Surprising for its time, the transmission is a five-speed manual. Unlike later models, it lacks what has become the traditional Ferrari shift gate, and I must confess that I missed it. The box is purpose-built, not acquired from some Fiat parts catalog, and shifting it properly takes good coordination and timing, especially in the lower gears. Ferrari wanted it this way. He wanted the car to be just challenging enough that its driver could feel some pride at being able to master it. This, even more than the fact that he could afford a Ferrari, would set a Ferrari driver apart from the common herd. And one would have to say that it certainly worked for people like Michael Schumacher.

The chassis is a welded oval-tube ladder with cross members at both ends and just ahead of

the rear axle, plus a central X-member. The front suspension consists of unequal-length control arms with a transverse leaf spring and bespoke Houdaille lever-action dampers. The rear suspension has a live axle located by long leaf springs and a very slick transverse anti-roll bar that mounts on the ends of the Houdaille dampers ahead of the axle. As the years went by, many 166 owners replaced the Houdailles with modern telescopic dampers, and this was the case with the Bud Lyon car, but the original Houdaille items were relocated, rebuilt, and reinstalled as part of the restoration done by Paul Russell and Company. Brakes are sizable hydraulically operated drums that work reasonably well, but today's drivers will quickly see why disc brakes were such a godsend, although Ferrari was late to install them on his cars. Like most 166s, the Lyon car has Borrani wire wheels. Some early 166 models had disc wheels with hubcaps, and not even the great Touring Superleggera coachwork looks good with those.

With only 140 horsepower and very skinny tires, the Barchetta does not overwhelm with either raw speed or great roadholding, but it is quick and agile, and it sounds better than the Vienna Boys' Choir. You cannot drive it with-

## GIOACHINO COLOMBO

FERRARI'S V-12 ENGINE PIONEER.

**G**ioachino Colombo (1903-1987) started his career at Alfa Romeo under the great Vittorio Jano. His first design triumph was the Alfa Romeo 158 *voiturette* that



was developed into the all-conquering postwar Tipo 158 and 159 GP cars. By then, he had left Alfa to design a 1.5-liter V-12 for Enzo Ferrari's fledgling operation. This Colombo engine was used in all the early Ferraris, including the 166MM. It was revived to even greater effect after Colombo left Ferrari in 1950, powering the 250GT and its derivatives and the 250 Testa Rossa racers.

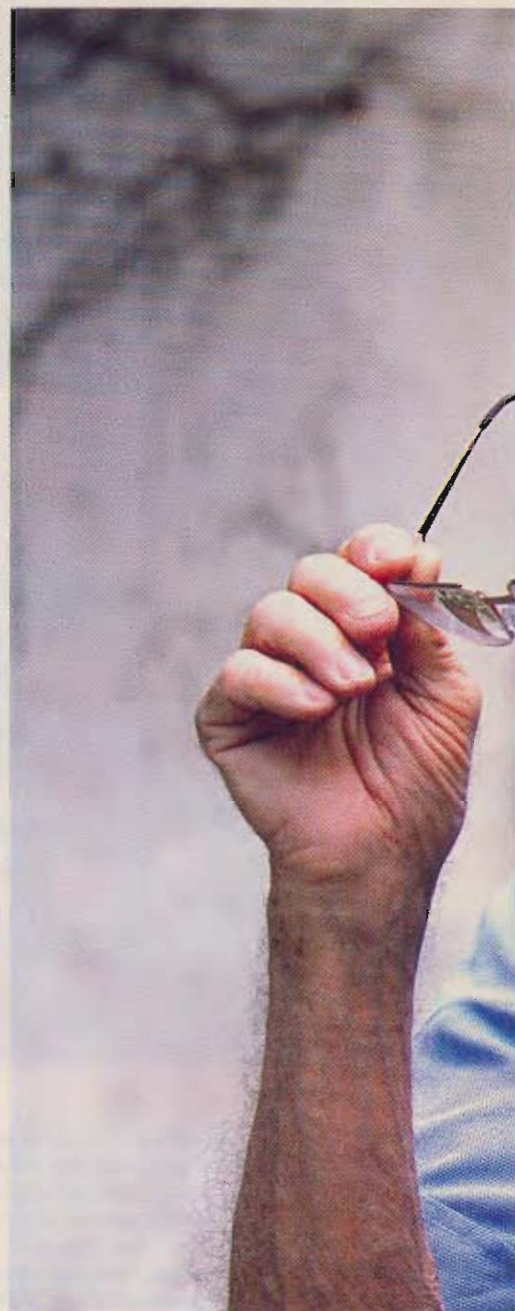


out smiling. It feels feather-light, much lighter and more modern than some later Ferraris of greater displacement. It is a car that will consistently make you happy. And, in its defense, it was quite fast enough to be competitive in its day. The big Ferrari news in 1949 was generated by Luigi Chinetti, with back-to-back 166 Barchetta victories in the twenty-four-hour races of Le Mans and Spa. Chinetti's co-driver at Le Mans was Lord Peter Selsdon, who took the best part of an hour to drive three laps, at which point Chinetti took over again and drove the rest of the race, racking up a little more than twenty-three hours at the wheel. The victory at Spa, with Jean Lucas, was more conventional. If there were any doubts whatsoever about the Barchetta's capabilities, Chinetti laid them to rest in those two races—especially his near-superhuman performance at Le Mans.

Lyon bought 0006 M from a Swiss owner in

1993. After enjoying it for a while, he turned it over to Paul Russell and Company in Essex, Massachusetts, for a complete restoration. Actually, the Bud and Thelma Lyon collection, which numbers thirty or more cars at any given time, is housed in a special building adjacent to Russell's shop, so delivering a car to them is no big deal. Bud wants his cars restored to original factory condition. He says, "I think of them as just having come off the showroom floor, and that's the way I like to see them. I don't see myself as a caretaker for a lot of dents and patina."

So Ferrari 166MM—serial number 0006 M, engine number 0004 M, Touring body number 3243 with Lusso interior—has found a good home. Lyon may look like your college physics professor, but he's solidly grounded in the legendary importance of his cars, and he drives them often and well, exactly the sort of owner Enzo Ferrari had in mind back in 1947.



Lake Como, Italy—

**W**hen my father died suddenly in 1948, everyone said that Carrozzeria Touring was finished. I was just thirty-two and had been working with my father for only three years, but I was determined to keep Touring alive. The design that showed the world that we could and would continue was the Ferrari Barchetta. Creating it was a terrible test. It had to be different for a new marque, and it had to be distinctive. I believe we succeeded."

So said Dottore Ingegnere Carlo Felice Bianchi Anderloni modestly as we chatted in bright sunshine outside his retirement villa near Lake Como. Then the spry octogenarian sprinted upstairs and brought down the 1/10-scale model that he, with some trepidation, had taken to Enzo Ferrari for approval fifty-four years ago. Even though the Auto-Avio Costru-



### 1949 Ferrari 166MM S/N 0006 M, Engine 0004 M

- > PRICE NEW \$1340
- > VALUE TODAY \$1,700,000
- > ENGINE SOHC V-12, 122 cu in (1995 cc)
- > POWER 140 hp @ 6600 rpm
- > TORQUE 145 lb-ft @ 6600 rpm
- > TRANSMISSION 5-speed manual
- > TIRES 5.50-15 front, 6.00-15 rear Englebert
- > CURB WEIGHT 1433 lb





# BOAT BUILDER

*Carlo Felice Bianchi Anderloni, one-time head of Carrozzeria Touring, recalls the genesis of the Ferrari Barchetta shape.*

**BY ROBERT CUMBERFORD**

**MILLE MODEL** Back in 1948, Carlo Felice Bianchi Anderloni of Touring showed this same 1/10-scale styling study of the Barchetta to Enzo Ferrari.

zioni 815 Mille Miglia cars Ferrari had made in 1940, when he was prohibited from using his own name, were bodied by Carrozzeria Touring, that relationship had been with Bianchi Anderloni's father, Felice. Looking at the 1/10-scale model, Enzo Ferrari accepted the shape as presented. Luigi Chinetti won the 1949 Le Mans 24 Hours with one of the first Barchettas, and Touring subsequently built dozens of variants up to 4.1 liters. Later, the "little boat" design was elegantly transformed into a GT coupe as well.

"At first," said Bianchi Anderloni, "we did all the road cars for Ferrari. Ing. Gioachino Colombo supported Carrozzeria Touring, saying 'racing cars should also be elegant.' It was not good business, though, building bodies for racing Ferraris. There was no flow of work, just rush orders in small batches, and we eventually gave it up." The fact that Fiat, already subsidi-

dizing Ferrari long before buying it outright, placed Battista "Pinin" Farina on Ferrari's administrative council also turned the Modenese firm toward Turin for its increasing volume of road-car bodies.

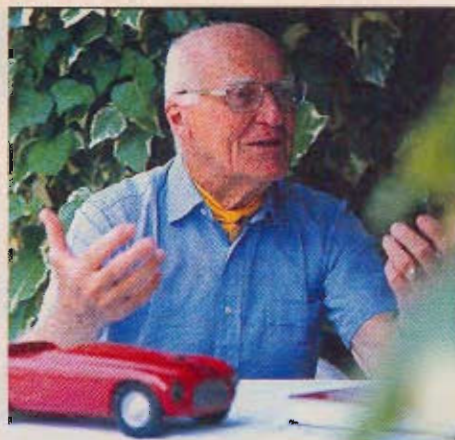
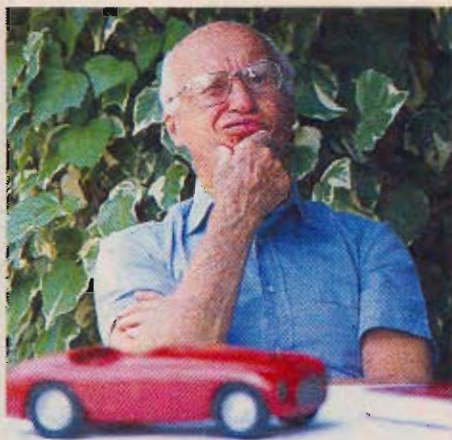
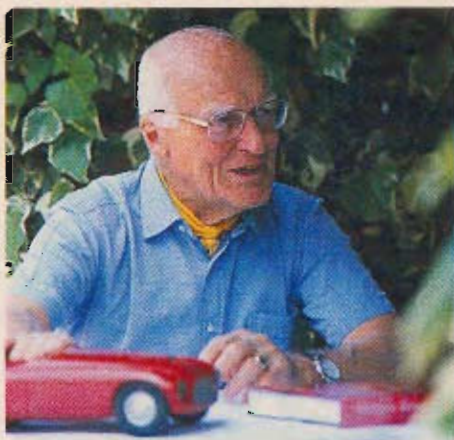
A second vital design from the hand of young Carlo Felice Bianchi Anderloni and his faithful illustrator, Federico Formenti, at almost the same time as the Barchetta, was a coupe on an Alfa Romeo 6C 2500 SS chassis. It won a concours d'elegance at the Villa d'Este on Lake Como in the fall of 1949, when only new cars were eligible in such events. This was the famous "Villa d'Este coupé" that won there again last fall in a concours for old cars. Its lasting influence is very clear in the design of today's Alfa 147.

There was enough originality in those two designs to keep Touring busy for years to come

just making variants in a wide range of sizes, from small Fiats to Alfa Romeo ministerial limousines. But during the eighteen years Carlo Felice Bianchi Anderloni originated the company's designs, Touring also created all-time classic styles for two new marques, Pegaso and Lamborghini, and built bodies for Alfa Romeo, Aston Martin, Lancia, Lagonda, Maserati, and even Hudson. Not bad for someone expected to fail at the task of succession.

Founded in 1926, Carrozzeria Touring was an anomaly in that its creator, Felice Bianchi Anderloni, was a lawyer, not a technician, and, like his son Carlo Felice, a modest man. He said he disapproved of the practice whereby "everyone uses his own name," so he chose *Touring* because he thought it sounded international. His first client was the presti-





*"It was not good business, building bodies for racing Ferraris. There was no flow, just rush orders, and we eventually gave it up."*

gious Isotta Fraschini firm, not too surprising when two of his three sisters had married Fraschini brothers and the other had married Signore Isotta. His passion for racing and his skill at the wheel helped as well. A photo of the bespectacled Felice, elegantly dressed in suit and tie as befitted an Italian gentleman of means, at the wheel of a big Isotta with mechanic Bindo Maserati at his side says it all.

Felice's motto, "Weight is the enemy, air resistance the obstacle," is a wonderful credo well supported by the Superleggera ("superlight") structures and wind-cheating forms characteristic of Touring bodies from the mid-1930s on. The trellis of metal tubing welded into a rigid cage on which sheetmetal skins could be attached derived from Touring's experience with the Weymann semiflexible body-framing system used under license. "Every design at Touring was developed in a serious manner," said Carlo Felice. "Nothing was ever made without drawings. And we made models of every new design."

Touring did not survive the transition period when manufacturers stopped producing coach-builders' chassis and made unit-construction cars entirely by themselves. There was a project to assemble cars in Italy for Rootes, abruptly ended when Chrysler purchased the British company. Carlo Felice and his partner, Gaetano Ponzoni, who ran the administrative side for the entire forty years of Touring's existence, shut down the operation after completing the last of some 32,000 to 33,000 bodies. (The archives were burned by the buyer of the building before they could be removed, so no one is sure.) That car was a one-off Lamborghini called Flying Star II in honor of a Touring design of 1931 used on Alfa, Fiat, and Isotta chassis.

"I was going to stop working," Carlo Felice recalled, "but President Luraghi of Alfa Romeo said, 'You are too young to quit, and you know too much. Come with us.' So, from ages fifty to sixty-five, Carlo Felice Bianchi Anderloni



ran the body department, in charge of styling, engineering, and pre-production activities. Even after retirement, he continued as a consultant, but he finally begged off so that he could spend more time with Anna, his wife of sixty years.

Signora Bianchi Anderloni had a year in England as a student, and not only was her perfect English helpful to us, but it had allowed Touring to conclude its important contract with Bristol in the 1940s, when she served as interpreter for her husband and her father-in-law in the negotiations that resulted in an Italian aerodynamic body on that most English of eccentric motorcars. Her husband is less at ease in English but completely so in French: "When we were young, we spoke French at home." He has a brother, who is a chemist, and a sister, neither of whom was interested in cars or ever took any interest in Touring. The same is true of his two sons; one is a naval architect, the other a businessman in Milan.

One of the Bianchi Anderloni's nieces came by at lunchtime and was scolded by Anna for trying to help. "In this region, the hostess does everything. When I go to someone else's house, I do not lift a finger, and no one need help in my house," she insisted. The delicious and healthful meal she offered helped explain the slim forms of the energetic couple, although Anna admits that tending the garden is becoming too much for her.

As we sat beneath a leafy bower and Anna flitted between table and kitchen, unconscious little touches between the couple attested to the affection they share. It was at once amusing and moving. And it was good to see this great designer enjoying the fruits of his labor and being recognized for it. He travels less often now, noting that it is both tiring and expensive, but he is still very active in car enthusiast circles. He is patron of the Lancia Register of Melbourne in Australia and president of the Alfa Romeo Register; he is associated with other car clubs, and he receives many visitors, old friends and colleagues as well as others who, like us, want to know more about Carrozzeria Touring, one of the greatest Italian design houses.

Carlo Felice Bianchi Anderloni's links with the legendary company where he finished his thirty-six-year automotive design career remain unbroken. He drives an Alfa 33 sedan, a car developed after his time with the company but on which he inevitably had influence, if only in the approach to body engineering.

Listening to this intelligent and cultivated man talking about Jack London's *Martin Eden*, you might think he cared little for cars, unless you watched those sensitive fingers unconsciously tracing the lines and volumes of the little model in his hands, the car that saved Carrozzeria Touring, inspired generations of designers and enthusiasts, and continues to brighten concours and historic road events all over the world.