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## Overhaulin' the C/4

This 365 GTC/4 is one of the most impressive restomod Ferraris we've seen.

STORY AND PHOTOS BY ZACHARY MAYNE

While it never captured the hearts of Ferrari enthusiasts at large, the 365 GTC/4 is revered by its coterie of fans. Indeed, when new the C/4 handily outsold the now-legendary (and, at the time, less expensive) Daytona in terms of annual production, and it still features all the elements of a terrific GT: a 320-horsepower 4.4-liter V12 engine, a spacious interior with small rear seats that can be folded down to form a package tray and amenities like air-conditioning and power steering.

The owner of our featured 1972 example (s/n 14837) always liked the model; this is his second one. He acquired the car in 1990, and

describes it as having been "not in the best condition." The interior in particular was worn, although there were good things, too: "It had a great windshield with no pits, which a lot of them have." Overall, the C/4 was mostly original, although its factory-applied burgundy paint had been changed to a light blue.

For the next decade or so, the Ferrari was driven weekly in its stock form. Around 2000, however, the owner decided that the C/4 could benefit from some well-chosen upgrades. "I had an affinity for the car, and really liked the Pininfarina design," he says, "but it was also so 1970s in many ways."







**Above:** Customized rear end features widened fenders, bumperless butt and subtle decklid spoiler. **Left:** New interior furnishings include 550 seats and reworked door panels. **Below:** Parcel shell replaced rear seats.



The dated interior, with its thin door panels and unsupportive seats, was the first area tackled. "I started to think about the 550 Maranello," explains the owner, who began to look for a shop that could perform the desired changes using the 550 as an inspiration. Although he then lived in Florida, he decided to send the Ferrari to Prestige Auto Upholstery of North Hollywood, California.

The shop is owned by the three Orozco brothers, and one of them, Fernando, transformed the interior. For starters, the tops of the door panels were thickened to give a more luxurious feel. "We molded sheet aluminum to give that shape," explains Orozco. At the same time, the C/4's chrome door releases were relocated from the door panels to the door pulls; the change required longer latch-release cables. The restyled panels were then covered in tan Connolly leather.

Next, Orozco tightened the unsightly gaps between the dashboard, glove box and center console. The glove box, for example, was built out slightly using more sheet aluminum. The dash and glove box were then recovered in original-style "mouse hair" material.

New carpet and custom floor mats were also installed, and the small rear seats were replaced with a 550-style luggage shelf, which was finished with luggage straps and quilted Connolly leather. The headliner was made of the same leather.

By far the most noticeable changes to the Ferrari's cockpit are the modern, smaller steering wheel and the pair of 550 seats. Prestige added the chairs' Daytona-style inserts, which were specially dyed to be as close to the exterior color as possible. Less obvious but still eye-catching are the aluminum shift knob, pedals and passenger-side footrest.

Once the interior was refreshed, the C/4 was driven for a few more years before the owner decided to take another

step up the ladder of improvement. This time, however, the target was improving the aging GT's performance. "There were really two things that stood out about it," remembers the owner. "The brakes were a frightening experience. I had a couple of scary moments on Los Angeles freeways where the traffic would suddenly come to a stop and I would just haul on the brakes and hang on, hoping the car would stop in time." In addition, the 3,800-pound C/4 felt somewhat underpowered, even with those 320 Italian ponies under the hood.

For the mechanical work, the owner turned to Carobu Engineering in Costa Mesa, California. "At first, we thought about just putting a 400i motor in the car," he says, "but that would mean it would be fuel injected, and I wanted to stay with the Webers." The six side-draft 38 DCOE carburetors are one of the C/4's defining aspects, so it's easy to understand why they needed to remain.

Carobu eventually decided to start with a 4.9-liter 412 engine, and build a sort of C/4-412 hybrid. "The goal was to increase the power and torque of the engine while retaining the balanced character and stock appearance of the C/4," says company owner Tate Casey.

The stock 412 crankshaft was retained, but it now spins lighter Carrillo connecting rods, which in turn are bolted to Razzo Rosso forged aluminum pistons. The compression ratio of the motor was set to a relatively aggressive 10.0:1.

New camshafts with Carobu's proprietary performance street grind came next. "The new camshafts provide good low-speed torque and higher-rpm power without the driveability issues associated with more radical grinds," claims Casey. After some computer modelling, Carobu modified the 412 heads' intake and exhaust ports to take advantage

of the hotter cams' additional lift and duration.

Running the Weber carbs on a fuel-injected motor required further modification, including plugging the heads' injection ports so that the C/4 intake manifolds could be used. "It was also necessary to modify the heads to accommodate the C/4 distributor drives," says Casey.

A Black Stallion electronic ignition, which includes a stock-looking distributor and a programmable ignition module, handles spark. This setup, which is very advanced for a carbureted car, provides the ability to switch between two pre-programmed ignition curves as well as a "soft" rev-limiter.

On the exhaust side, further computer modelling revealed that the stock headers would not be sufficient for the more powerful motor. So, Carobu fabricated larger-tube stainless-steel headers, and then port-matched the exhaust ports to them. "In order to preserve the character of the original header, a 6-into-2 design using flat 3-into-1 collectors was retained," Casey explains. The finished headers were ceramic-coated black to match the look of the original units and to better dissipate heat. A Tubi exhaust would carry spent gasses to the rear of the car.

When Carobu tested the freshly built V12 on its engine dyno, the numbers didn't disappoint: At 6,400 rpm, the motor belted out 410 crank horsepower. Perhaps more importantly, the 4.9-liter mill pumped out 385 lb-ft of torque at an accessible 4,500 rpm. "No one can say that this Ferrari engine lacks low-end torque," says Casey.

The C/4's original five-speed manual gearbox was retained, but a lighter flywheel was fitted to allow the motor to spin more freely. A custom Kevlar-lined clutch was installed to handle the extra power. In order to keep the beefed-up V12 cool, the C/4's stock brass radiator was

replaced with a more modern aluminum one.

Carobu next turned its attention to the Ferrari's brakes. Brembo was chosen as the upgrade supplier, but there was a problem: The company had never made a big-brake kit for this particular model. "Brembo sent an engineer over to take measurements, since this was the only C/4 they had ever done," recalls the owner.

Brembo soon supplied a kit that featured 13-inch floating front rotors and 12.9-inch floating rears, all clamped by four-piston calipers. The stock emergency-brake system, which is incorporated into the rear hubs, was retained. Finally, 17-inch aftermarket wheels were fitted.

With the Ferrari stopping better than ever, it was time to refresh the suspension. Carobu installed Koni coilovers all around: "Since this car was to be used primarily as a street car, moderate spring rates of 300 pounds up front and 200 pounds at the rear were used," says Casey. C/4s have a self-leveling setup, and Carobu rebuilt the two "extra" rear shock absorbers that control the system.

Most projects would be considered complete at this point, but as those familiar with C/4 sheet metal will have already spotted, there was more to come. "About four years ago, I started to make small changes to the car's exterior," explains the owner.

Avio Coach Craft in Los Angeles was selected to handle this next phase, with company boss Avio Piombetti and employee Hugo Rodriguez working closely with the owner during the process. "Avio would really restrain me," he says. "He looked at the overall picture, for everything to work and for there to be continuity."

The changes started at the front. "The hood was so barren," says the owner. To break up the expanse of sheet metal,

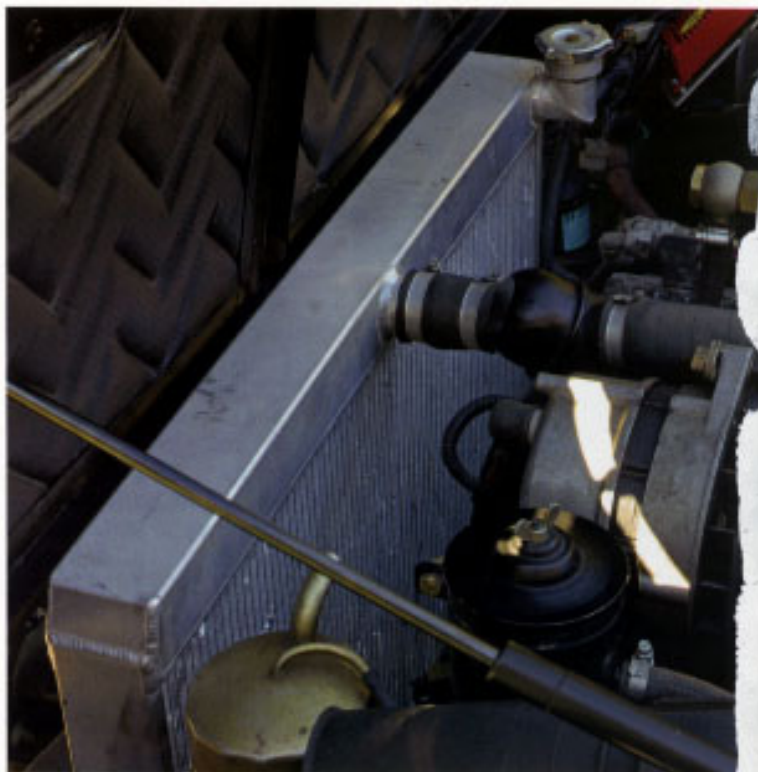
they decided to add chrome accents to the intakes. Once a satisfactory look was fabricated in wood, brass pieces were made from the wood models and then chromed.

Next up was a restyling of the car's nose. When it came from the factory, the C/4 had pop-up headlights over a long front end that was capped by a full-width black bumper. "The car was just too long, so we took off the bumper and cut the metal back about six to eight inches," says the owner. That change made the grille opening larger, so a larger grille was made of brass and chromed. Finally, the pop-up headlights were removed; in their place went quad lamps from a 1980s BMW.

Once the changes to the front end were finished, the owner decided that the C/4 needed a more aggressive stance, particularly at the rear. At the time, the Ferrari wore the 7.5- and 8-inch-wide aftermarket wheels that had been installed with the Brembo brakes. The rears were sent to Italy so they could be widened by the company that made them, but after a year of back and forth, Carobu came up with its own wheel design and had a set made in the U.S. Once the new 17-inch alloys were ready, they were shod with Pirelli P Zero rubber: 235/50-17 front, 285/40-17 rear. (The 200-lb. rear springs were replaced with 225-lb. units at the same time.)

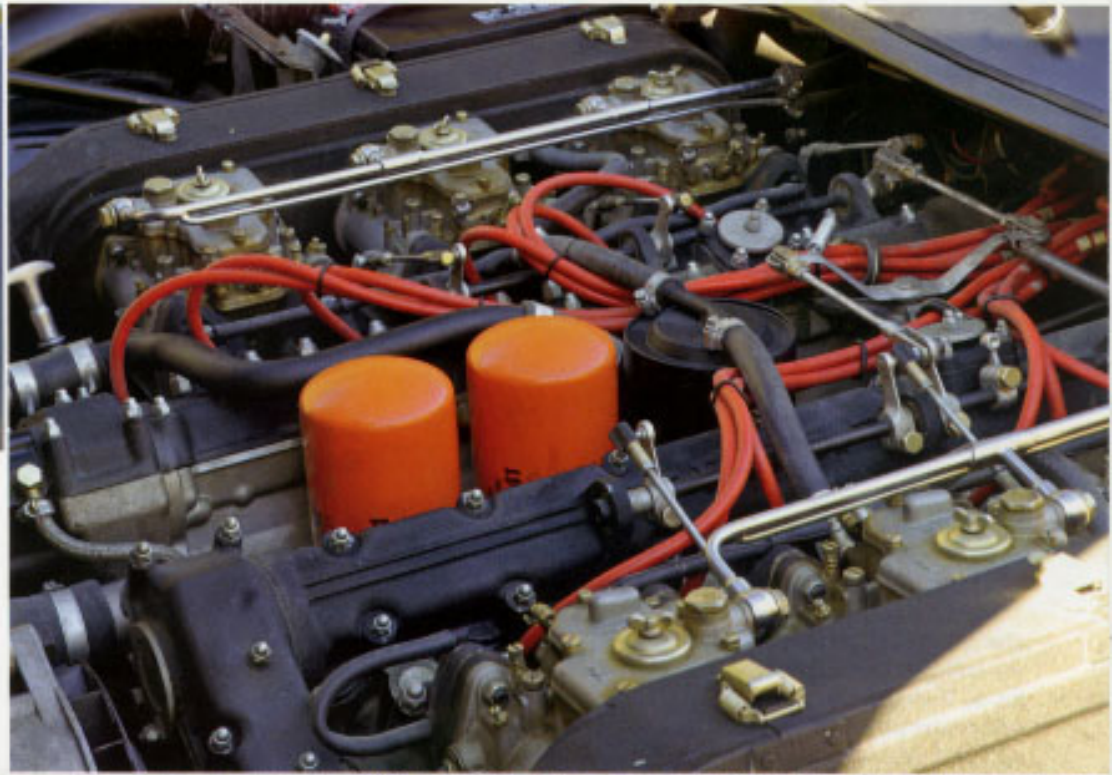
When the rear wheels were test-fitted, however, it was clear the stock bodywork could not comfortably accommodate their 10-inch width. The only way to make everything look right would be to flare the fenders at all four corners, but the owner was well aware that this was a perilous path: "If you widen a car like this, it's easy to make it look cartoonish," he says.

After much discussion, it was decided to widen the front fenders by about one inch and the rears by 1.75 inches. Rodriguez carefully cut the





**Left:** New aluminum radiator helps cool hotter engine.  
**Right:** 4.9-liter V12 combines 412 block and heads with GTC/4 intake for 410 horsepower and 385 lb-ft of torque.  
**Below:** Aftermarket five-spoke 17-inch wheels surround big Brembo brakes.



sheet metal and grafted in new steel. "He built out the entire fender and it looks smooth and original, as if Ferrari might have done it," says the owner. A close inspection of the rear fenders reveals that not only are they flared, but that Rodriguez also went to the trouble of sharpening their upper edge.

As work progressed, other changes were envisioned and then implemented, such as the dummy outlet vents on the front fenders, just behind the wheel wells. Additionally, the original small chrome outside mirror was replaced with a pair of modern aero-style mirrors from Porsche.

At the rear, the bumper was also removed. This resulted in the taillights sticking out too far, so Rodriguez fabricated a new center panel with recesses on either side, allowing the lenses to be tucked closer in. Along the way, the C/4's quad exhaust tips were shortened so they wouldn't protrude awkwardly. The trailing edge of the trunk lid received a very subtle upturned lip to modernize its appearance.

Once the body modifications were finished, the Ferrari was painted a metallic shade of light blue. Finally, the rear quarter windows were removed and black tint was installed on their perimeters to make them appear smaller. The rest of the glass was tinted a subtle shade of blue.

Despite the extensive changes made to this C/4's exterior, the overall effect is harmonious. If you didn't know better, it would be easy to believe you're staring at a long-lost C/4 prototype. The alterations are particularly impressive at the rear, where the extra-wide wheels strain against the edges of the reworked fenders.

When I swing open the door and slide inside, I find an interior that's far more luxurious than stock. The 550 seats are deeply bolstered for spirited driving, yet are also very



Overall, my lasting impression of the car is how seamlessly all the alterations work together.

### 365 GTC/4 » Modified C/4

#### GENERAL

Vehicle type:	Front-engine 2-door coupe
Structure:	Steel chassis and bodywork
Length:	179.9 inches
Width:	70.1 inches
Height:	50.0 inches
Wheelbase:	58.4 inches
Track, f/r:	57.8/57.8 inches
Curb weight:	3,800 pounds

#### ENGINE

Type:	60° V12
Construction:	Aluminum block and heads
Displacement:	4,390cc = 4,943cc
Compression ratio:	8.8:1 = 10.0:1
Horsepower:	340 @ 5,800 rpm = 410 @ 6,400 rpm
Torque:	318 lb-ft @ 4,000 rpm = 385 lb-ft @ 4,500 rpm
Valvetrain:	DOHC, 2 valves/cylinder

#### DRIVELINE

Transmission:	5-speed gearbox in unit with engine
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#### SUSPENSION

Front:	Double wishbones, coil springs, anti-roll bar, telescopic shocks
Rear:	Double wishbones, coil springs, anti-roll bar, telescopic shocks

#### WHEELS & TIRES

Front:	7.5 x 15-inch, 215/70 = 7.5 x 17-inch, 235/50
Rear:	7.5 x 15-inch, 215/70 = 10 x 17-inch, 285/40

#### BRAKES

Type:	11.3-inch front, 11.7-inch rear discs = 13.0-inch front, 12.9-inch rear
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comfortable. The smaller steering wheel allows welcome extra room for my legs, and the polished shift knob feels great. Unusual for a Ferrari—but normal for a C/4—is a leather boot that surrounds the shift lever.

The engine fires with a muted V12 burble, and first gear snicks home smoothly. The clutch is a little heavy but easy enough to modulate as I pull onto the road. The car's power steering is a delight: Rather than having to muscle the C/4 around at low speeds like most period Ferraris, I can just twirl the wheel and avoid the parking-lot workout.

The V12 revs quickly, revealing a very linear powerband. There is plenty of mid-range grunt, as promised, but keeping the throttle pinned to the floor also reveals the engine's happiness to run in the upper reaches of the tachometer.

The modified C/4 stays planted and stable in bends. There's still noticeable body roll when I crank the wheel, but once the car takes a set there's plenty of grip from the wide, sticky tires. When it comes time to rein the coupe back in, the big Brembo brakes slow the Ferrari without drama. While I'm still aware of the car's heft during aggressive driving, the handling and braking improvements have resulted in a far more nimble machine.

Overall, my lasting impression of the car is how seamlessly all the alterations work together; this Ferrari looks and feels like it might have come from the factory. While the changes wrought to it are certainly not for everyone, this C/4 combines many of the best attributes of a classic Ferrari with the accommodations and performance of a much more modern one. Even those who look down on the model in general, or who don't approve of such extensive modifications, would be hard-pressed not to enjoy their time behind the wheel of this particular C/4. ●