Workshop

Cuevas Custom and Super Corsa

Two Framesets from a Spanish Master

Richard Jow

The Cuevas name is probably unknown to most cyclists except for those around Astoria, Queens, in New York where his shop is located. Although I had ridden Francisco Cuevas' bikes, I'd never met the man until a trip to the East Coast in early 1983. Soft-spoken and unassuming, 68-year-old Francisco Cuevas has been building frames for some 54 years.

He began his framebuilding education in Spain during his teens. After a four-year apprenticeship with a number of local frame builders, he opened his first shop, *Ciclos Cuevas.*

In 1951, he moved to Argentina and became more production-oriented, as shown by the 25 frames per week he turned out with the help of his assistants.

Then in 1969 Cuevas moved once again, this time to the United States. During his first eight years here, his major vocation was as a mechanic. But when he signed on with Paris Sport in 1977, and then worked a six-week stint with well-known framebuilder Pepi Limongi two years later, his desire to produce high-quality framesets was rekindled. He has been building frames ever since.

What makes a Cuevas frame unique? If the Cuevas framesets are judged on appearance alone, there isn't much that distinguishes them from other handmade frames. But unlike his modern counterparts, Francisco Cuevas does all his work by hand. No power tools are used in the assembly of Cuevas framesets.

In fact, Cuevas doesn't even use a frame jig to hold the tubing in alignment while brazing the frame triangles. He feels that in his jigless method, the tubes are free to move as they are heated and cooled; thus, no stresses are built into the finished product. When frame tubing is clamped into a jig, Cuevas says, the expansion and contraction of the tubing caused by the heat of the brazing torch is restricted, thereby freezing the stresses in the frame. Although I have never experienced any detrimental effects of a jig-built frameset, theoretically a jigless-built frameset could have fewer built-in stresses.

Building a frame without jigs is time-consuming because of the constant alignment checks that must take place as the frame is assembled. Also, to keep tube creep down to a minimum, heat build-up must be watched very carefully, slowing construction even more. The process sounds tedious, and it is, but after more than five decades of building frames without a jig, Francisco Cuevas has perfected his technique until it seems almost effortless.

The two Cuevas framesets I had the opportunity to evaluate were early versions of the

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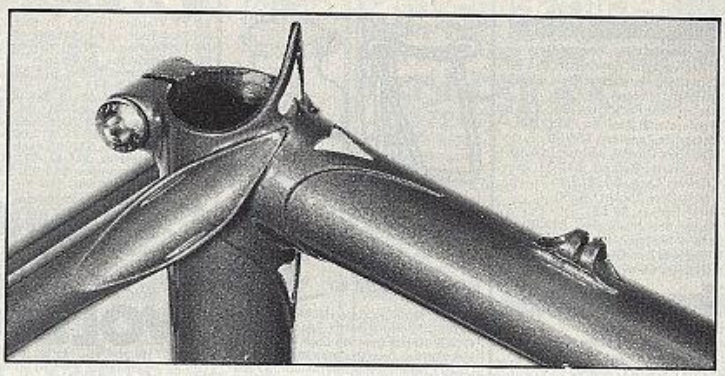
Cuevas Custom and Super Corsa

Continued from page 158

Custom and the Super Corsa. Since my evaluation began, Cuevas has developed and finalized the details of the Custom model. My test models and the current production models are the same with the exception of the lugs and bottom bracket shell of the Super Corsa; also, the current frames receive more elaborate detailing.



Long-point Custom seat lug is filed paper-thin; cutouts are hand painted.

Tailor-Made

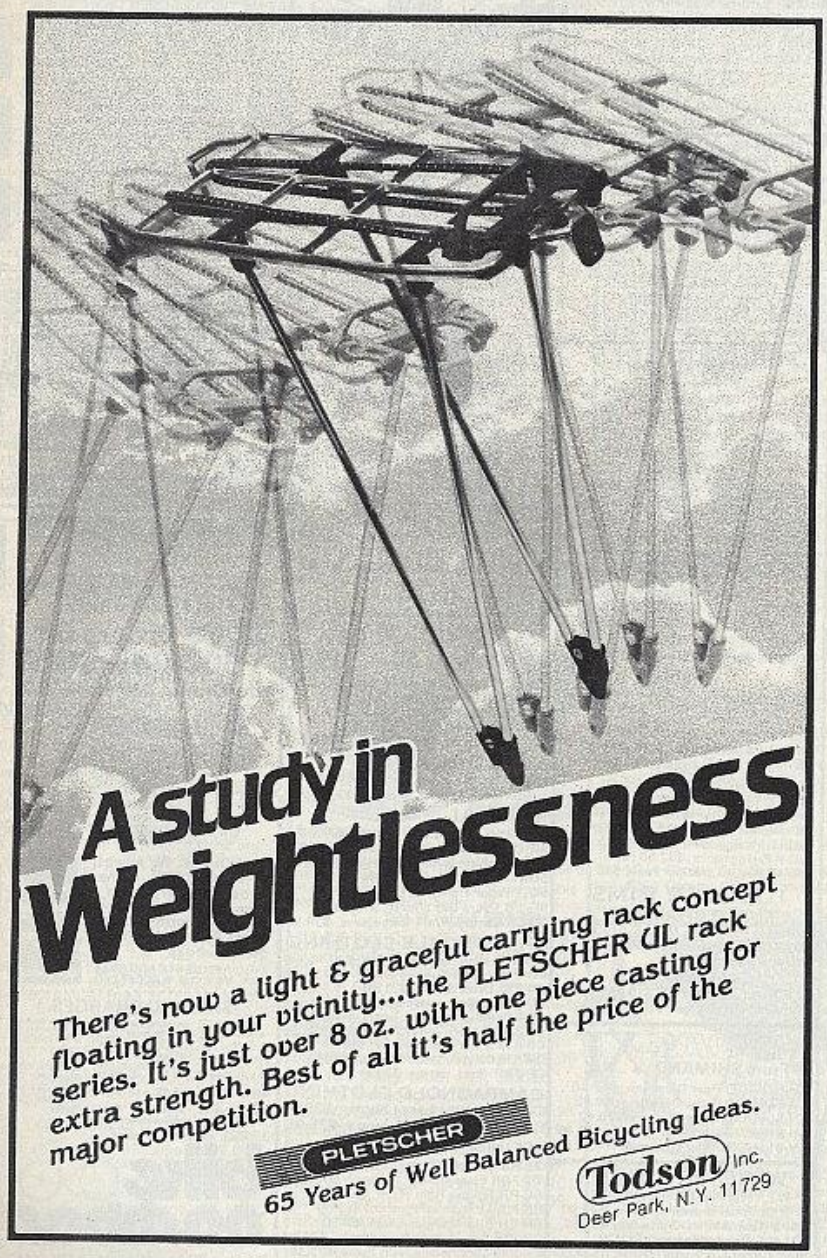
As the name implies, the Custom is a tailor-made frame. This model has all the individuality, and all the bits and pieces specified by the client. The Super Corsa frame is an off-the-rack model without options except for dropout and fork tip choice and color. In addition to these two road models, Francisco also builds a track frame, a Reynolds 753 frame, and a tandem frame.

Geometrically, there isn't much difference between the majority of Custom frames Cuevas builds and the Super Corsa model. The Super Corsa is built from Columbus SL whereas the Custom is built with Reynolds 531 or 531 SL. Both tested frames had Prugnat lugs, but the current Super Corsa is being built with Guinticiclo medium-point lugs. The Custom model lugs receive more detail finishing than the Super Corsa's. Both test frames had Roto bottom bracket shells, but a Guinticiclo bottom bracket shell is being used on the current Super Corsa model, and a Cinelli bottom bracket shell is now used on the Custom model.

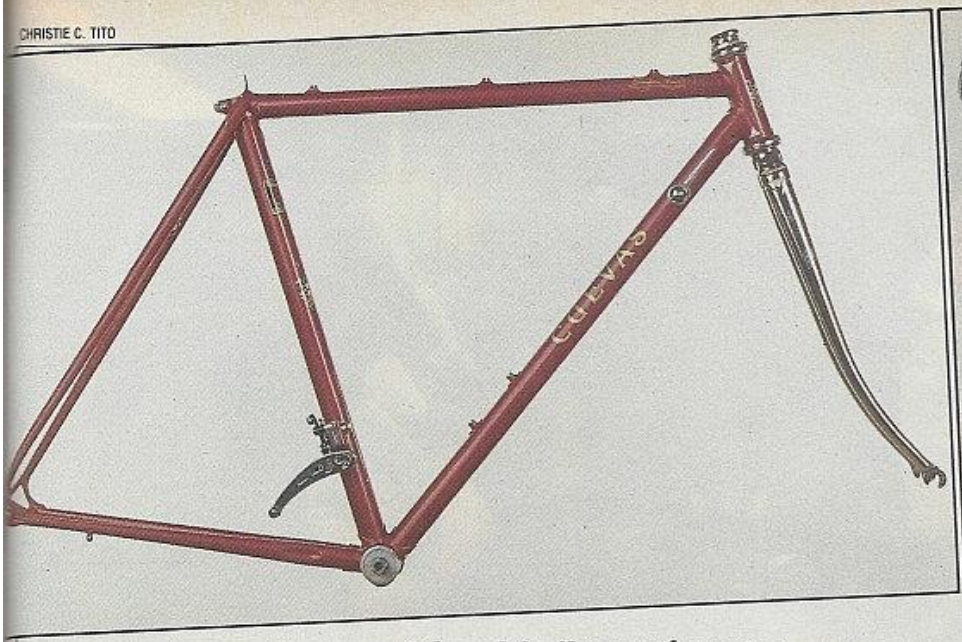
The Custom is a very clean-looking frame, elegant without being over-decorated. At first glance it looks almost too simple. But a careful investigation shows that considerable effort has been expended to ensure correct frame alignment. Everything is in harmony: the frame tubes line up, the dropouts are parallel, the bottom bracket axis is perpendicular to the wheelbase line, and so on.

The braze-ons of the tested Custom frame include shift lever bosses, a rear derailleur cable stop, derailleur cable saddles over the bottom bracket (the current model routes cables under the bottom bracket), brake cable guides, and water bottle cage bosses. Braze-ons can be added almost ad infinitum on the Custom frame—you can have whatever you want as long as the frame's integrity is not damaged.

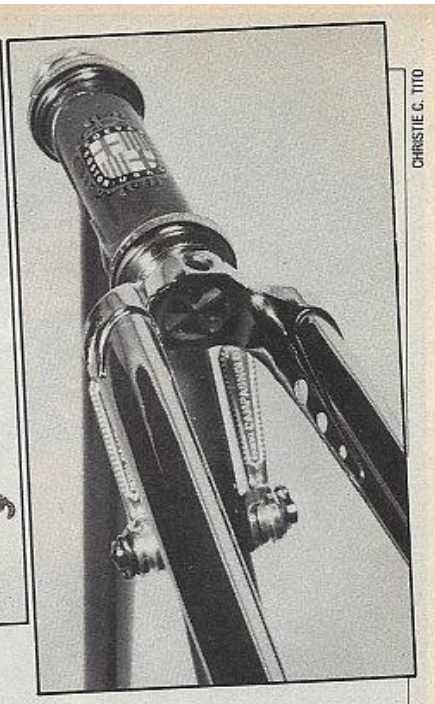
Unseen, unless the frameset or fork is turned



CHRISTIE C. TITO



Cuevas Custom: A hand-built creation at a sobering price.



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X-brace in the Custom fork steerer is a Cuevas trademark.

upside down, is the X-bracing that is brazed inside the steering tube at the fork crown to strengthen the fork. Cuevas' rationale for this is to provide the strongest stress path possible between the ground and the bike. He feels that high-impact stresses not resisted or dampened by the steering tube are transferred to another portion of the frame along the stress path, which means that in a frame *without* an X-stiffener, the bottom bearing of the headset, the head tube, and the down tube are subjected to more intense forces. Under normal riding conditions, the stiffener makes no difference in the way the bike rides. Whether the design fulfills its designer's expectations is another matter, and one that—regrettably—can't be settled in the short exposure of a simple road test.

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LAYOUT: KEN ROSS

HAL STUCKER

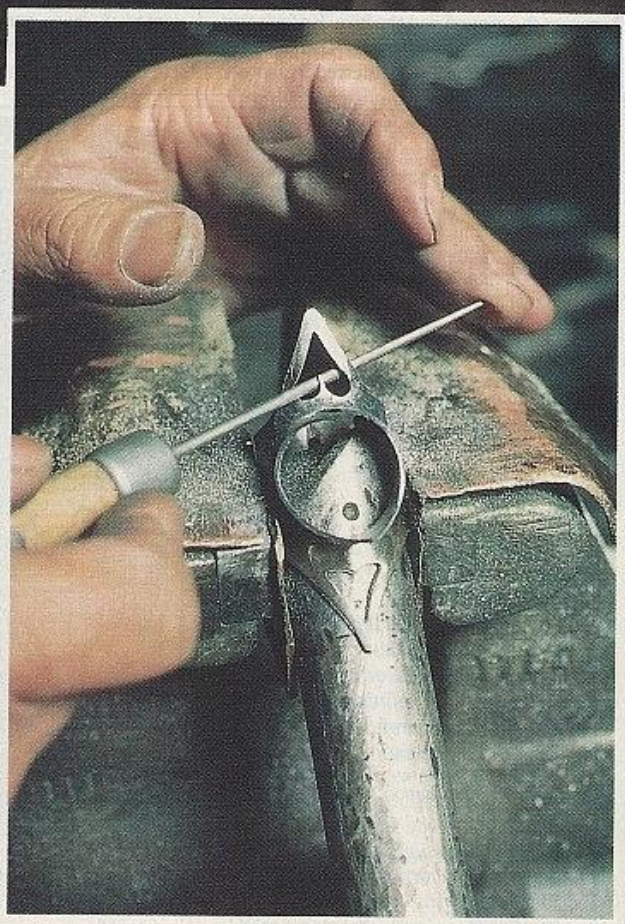
Not a jig in sight: Francisco Cuevas brazes every frame by hand and eye.

Cuevas Custom and Super Corsa

Additional fork strength comes from reinforcing plates which extend approximately three inches down from the fork crown on the inside of each fork blade. This is a widely accepted convention on lightweight frames.

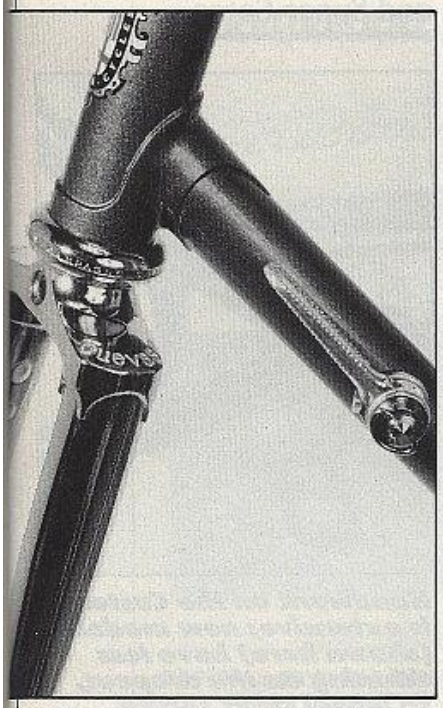
Not Drilled, Roto

One detail I particularly liked on both framesets was that the Roto bottom bracket shell was not drilled or slotted, a barbaric practice aimed at weight reduction, but accomplishing little. Instead, in the area where the slots would normally be, the shell is relieved with a series of depressions. The result is an attractive design without the problem of moisture getting in through a slotted bottom bracket shell. I'm told, incidentally, that the current models using the Cinelli and Guinticiclo bottom bracket shells are also unpierced.



A Custom seat lug takes shape.

HAL STUCKER



The Super Corsa fork is chromed, carries fork stiffeners and an engraved fork crown.

Cuevas does a good deal of filing on the Campagnolo 1010B dropouts on the Custom frame. (The Super Corsa uses unfiled 1010 dropouts either with or without eyelets.) Much material has been removed from the outer edges and windows, enough to provide a square edge all along the perimeter. A tapered end on the leading edge of the axle slot makes a quick wheel change easier but also means that your quick-release will have a tenuous hold if you position the rear wheel as far forward as possible in the dropout to minimize the wheelbase.

If this is tried on the Cuevas Custom, it may result in a bent dropout because there may not be enough material to resist the lateral loads encountered in hard riding, bad road conditions, or crashes. I discussed this with Cuevas and he agreed with my concern; he no longer does as much filing on the dropouts. Actually, the optimum wheel position in the dropout is at a point where the chainstay and seatstay centerlines intersect, and there shouldn't be any problem if the axle stop screws are adjusted for this position.

Riding Qualities

To test Cuevas' handiwork, I built up my Super Corsa sample with the Roto group reviewed in our April issue. I used an old Zeus 2000 group on the Custom frame.

My test methodology was the same one that I've used for 11 years of road testing: to ride the bikes over an eight-and-a-half-mile (one-way) commuting course from San Francisco to Sausalito, across the Golden Gate Bridge. The ride includes 750 vertical feet of climbing and some steep descents; the longest hill is about a half-mile, and the steepest is a 1:7 grade at its knee-quivering maximum. I put a minimum of 100 miles on each bike, and lent both bikes out to experienced riders for their reactions.

I was not disappointed with the riding qualities of the Custom. The Custom feels very similar to a frame I own made from Reynolds 753 tubing. The dampening characteristics of the 531 SL tubing are actually a bit better than the 753's, making the Custom a more comfortable bike. There is some frame flex but not enough to disqualify the bike for road racing. Some people may find it too flexible for twisty criteriums, where there's a lot of braking and acceleration. This would be particularly true for riders weighing more than 175 pounds, or riders who use 58 cm or larger frames. To accom-

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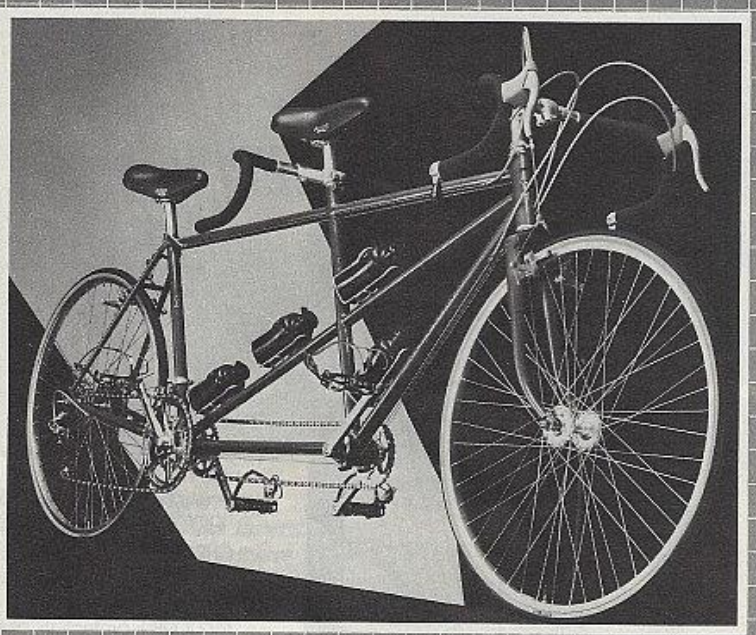

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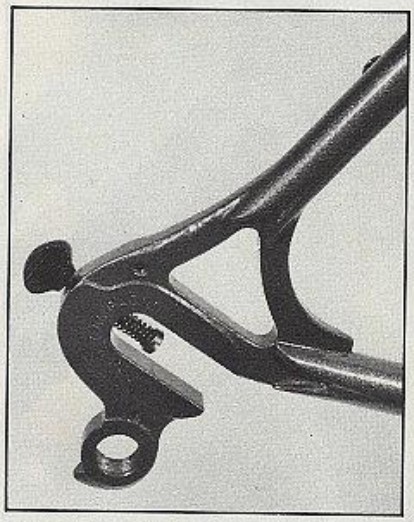

Handwork on the Custom is extensive; new models (shown here) have less thinning on the dropout, so wheel stays secure.

modate larger clients and aggressive riding styles, Cuevas uses thicker 531 tubing for added stiffness.

Two Inches of Trail

Fork rake on the Custom frame I received was two inches. In combination with the 73 degree head angle, this provided two inches of trail, enough to give good stable steering. The 39⅜-inch wheelbase of the Custom ironed out most road irregularities and, with the previously mentioned shock-absorbing characteristics of the Reynolds 531 SL, this frame is ideal for its intended use—fast riding on smooth roads.

The Super Corsa frameset is actually fancier than the Custom. A number of extra details on this frameset should, you'd think, increase its cost above the Custom's. Details such as the Cuevas engraved fork crown (the Custom now uses the same crown) and seatstay caps, and the brazed-on chain peg on the seatstay, along with all the other braze-ons found on the Custom model tested, would normally make the Super Corsa a more expensive frame.

What's the trick? Most of this custom work is done during factory production. The fork crown is stamped with the Cuevas name at the Cinelli works; the seat stay ends on the Super Corsa are actually solid plugs that are factory-shaped to resemble a hand-worked, truncated, and capped end; the brake bridge and chainstay bridge are manufactured units which are

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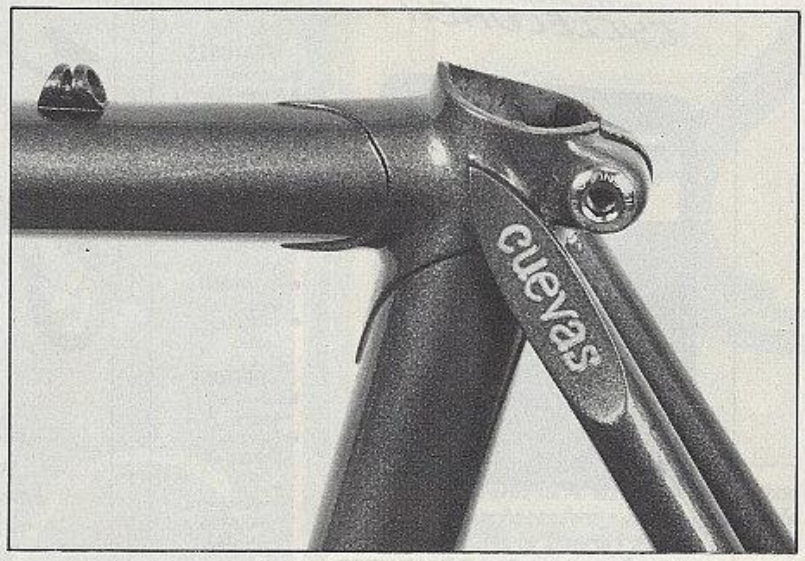
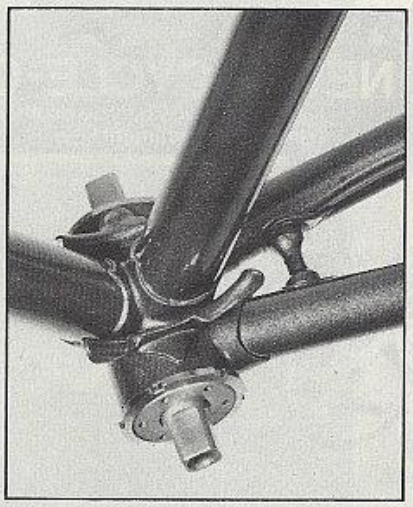


CHRISTIE C. TITO

Super Corsa details belie its off-the-rack origin. Stay caps are factory stamped, giving a custom look.



Masterful brazing on the Super Corsa; note the elegant chainstay bridge and reinforcements.

CHRISTIE C. TITO

prefinished and simply brazed into place. Also, a close look will reveal that the lugs have not been filed to taper into the tubes as on the Custom frame, nor are the chainstay tang on the Super Corsa's bottom bracket and the seat lug tangs filed into a heart shape as on the current Custom frame.

The road characteristics of the Super Corsa did not differ too much from the Custom's. It held a line as easily as the Custom, most likely because the front end geometry (74-degree head angle and 1¾-inch rake) works out to the same amount of trail: two inches. I expected the ride to be choppier on the Super Corsa since its wheelbase is shorter than the Custom's (38½ versus 39⅜ inches) and its head angle is steeper. But the ride was smooth.

I was told that the Super Corsa frame could be used for touring, but after riding it I have to disagree. In order for it to qualify as a tourer, the frame should have a longer wheelbase. In particular, the chainstays need to be longer to provide additional clearance between heel and panniers. Also, the tubing should be a stiffer grade (Columbus SP) to handle the weight of loaded panniers. I would also like to see other touring details such as brazed-on bosses for racks, extra bottle bosses, pump pegs, lights, and fenders.

Imron

All painting is done in-shop, ensuring close quality control. DuPont Imron is used for all models; you can get nearly any color you desire. Both models I tested had very uniform finishes without runs or orange peel. The lug windows are hand-detailed, and they were the only shortcoming I found on the two frames. The paint was thin and had a little overrun along the edges. A cleaner application and a

second coat would easily solve this minor flaw.

In the final analysis, there isn't much difference in the riding characteristics of the Custom and the Super Corsa. I like both. However, the cost difference between the two models is pronounced, approximately $750 for the Custom and approximately $500 for the Super Corsa. For these reasons, if the size and geometry of a Super Corsa suited me and I could live with its "standard" features, I would choose the Super Corsa as it gives the better value.

However, if you need something really special, such as a small frame (down to 45 cm designed for 700C wheels) or large size (up to 79 cm), the Custom model is the way to go.

Cuevas frames are distributed by Zeus Cyclery Corp. and can be ordered from any Zeus dealer. Complete bikes can also be ordered from Cuevas.○

Specifications

Super Corsa (tested)	**Custom** (tested)
Seat tube: 23½ inches	24 inches
Top tube: 22 inches	22¼ inches
Chainstay: 16 inches	16¼ inches
Wheelbase: 38½ inches	39⅜ inches
Fork rake: 1¾ inches	2 inches
Bottom bracket height: 10¾ inches	10¾ inches
Head angle: 75 degrees	73 degrees
Seat angle: 74 degrees	74 degrees

Super Corsa (as stocked)

size	head angle	seat angle	top tube length
50 cm	73 degrees	74 degrees	52.0 cm
52 cm	73 degrees	74 degrees	53.5 cm
54 cm	73 degrees	74 degrees	54.8 cm
56 cm	73 degrees	73 degrees	55.4 cm
58 cm	73 degrees	73 degrees	55.5 cm
60 cm	73 degrees	72 degrees	56.0 cm

All of the Super Corsa frames use the following dimensions:
Fork rake: 1⅝ inches
Bottom bracket height: 10¾ inches
Chainstay height: 16⅛ inches
Wheelbase: 38–39½ inches (depending on size)

Custom frames smaller than 50 cm use the following dimensions:

size	head angle	seat angle	top tube length
45 cm	73 degrees	74 degrees	49 cm
47 cm	73 degrees	74 degrees	50 cm
48 cm	73 degrees	74 degrees	50 cm

Fork rake: 1¾ inches
Bottom bracket height: 10¾ inches
Chainstay length: 15¾ inches
Wheelbase: 37¾ inches

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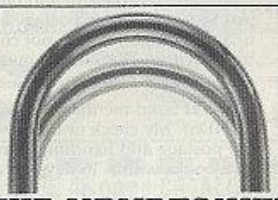

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