



The easy handling of the Champion 24 let Martin Aparjo demonstrate his version of a "Hannah." What Martin does next is his own invention.

Champion 24

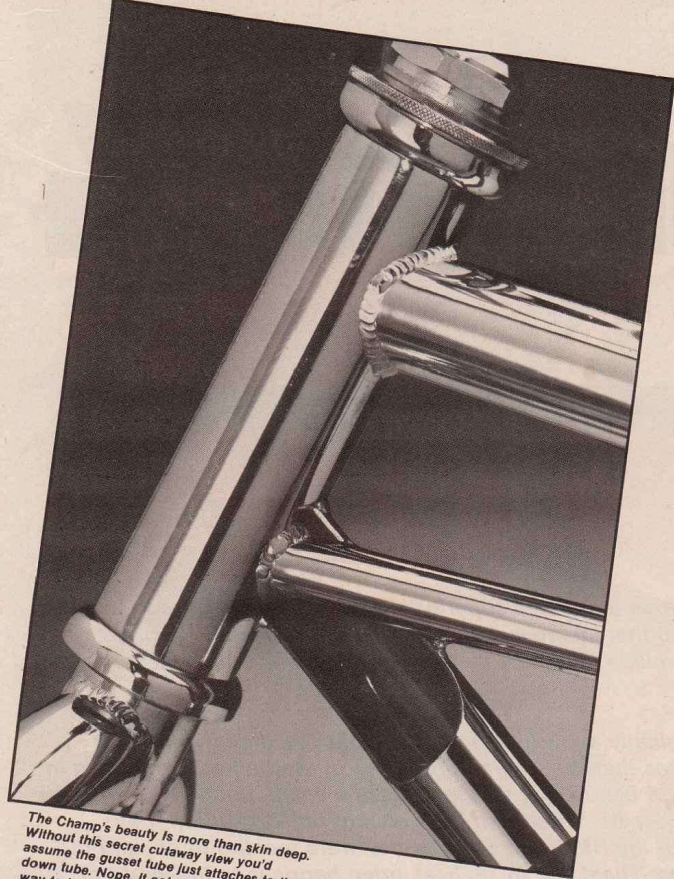
By Bob Hadley
Photos by John Ker

HIGH PERFORMANCE ART

To be called a champion denotes superiority over all others. True to the word and holding to that image is Champion Racing Products, Inc., of Chatsworth, California, a company that has given new meaning to the term "Front Triangle."

Champion was originally a motorcycle frame maker located in Northern California. It happens that they were bought out by Red Line Engineering in (or around) 1975, but before that they produced a small number of extremely expensive BMX framesets. When Red Line bought out Champion they weren't interested in the BMX frame at all, they were looking to expand the motorcycle ventures. Then, late in 1978, as often happens in the world of business, Linn Kastan and Mike Konle, the two partners owning Red Line/Champion, decided to dissolve their partnership and divide the company up between them. Kastan took his share and continued as Red Line, while Konle took his share and formed Champion. Konle and Champion remained in the original location with not only the motorcycle stuff, but all the equipment and tooling for bicycle production as well. Immediately, Konle put all of his years of experience making Red Lines to use, working as a fabricator of frames and frame tubing sets for other companies. He also stepped up his status in the motorcycle business, producing several models for short track (250 cc oval racing) and for motocross (500 cc four-stroke). Konle also became involved with cranes, not the birds, but the big construction cranes used in building and road repair, which he owns and rents.

Early in 1980, Konle figured the time was right to start working on his own Champion brand bicycles. It wouldn't be a straight resurrection of the original, which was both expensive to build and out-dated, but a new more efficient design based on the old idea. The result: three models—20-inch, 24-inch, and 26-inch. Our test bike: the 24.



The Champ's beauty is more than skin deep. Without this secret cutaway view you'd assume the gusset tube just attaches to the down tube. Nope, it actually pierces it on its way to being welded to the beely 5-1/2-inch head/tube.

The Old Idea

Over a year and a half was spent in experimenting with different styles designed around one constantly remaining feature: the original Champion's dual front triangle. From a visual standpoint, it appears as if the middle-gusset tube is connected only to the down tube and seat mast. Don't be misled. The gusset tube actually extends though and is welded to the head tube. To accomplish this, all the tubes are jigged up in a fixture. A welder then "tacks" the gusset tube to the seat mast. The down tube is carefully slipped rearward along the gusset tube to expose the head-tube/gusset-tube butt joint. After that joint is welded, the down tube is moved back into its position and welded. From that point the frame is 100% welded in the jig.

The objective of the dual triangulation is to spread out the concentration of stress loads in the most efficient fashion. To do this, the gusset tube has to be connected directly to the head tube and triangled with the top tube where it ends at the seat mast. Any other arrangement would not be fully effective. Champion's dual triangle gives it perhaps the best strength-to-weight ratio going. (See the sidebar for Konle's comments on dual triangulation.)

Not coincidentally, Champion's rear triangle section is designed with the intention of making it structurally consistent with the front half of the frame. The seat and chain stays angle to a perfectly mitered connection above the rear dropout. Champion figures that this method adds uniform rigidity to the rear triangle section. The unusual

rear dropout design was carefully considered and tested extensively by Champion. It looks much like a front fork dropout with an axle adjusting slot, but it is, in fact, much more than it looks. It is thick, one-third thicker (.140") than Champion's front fork dropout. It's stagger welded along the length of the chain stay, which is more than three and one-half inches long, and it has a channel bend along the bottom edge to help resist flex. We were very impressed with this design, but then, we're pushovers when it comes to clean, simple, and functional designs.

Not Overlooked

Since all the stresses to that critical head-tube area are delivered via the fork, it makes sense that Champion wouldn't overlook its design requirements. Like the frame, the fork shows purposefulness in design. It's a simple, proven leading-axle design executed with the expertise you'd expect from the man (Konle) who was one-half of the team that revolutionized (and legitimized) tubular chrome-moly forks for BMX.

The fork leg diameters are one and one-eighth inches. The leg ends and dropouts are done in classic slant-line style. The legs have a wide radius bend with no trace of the crumpling that is often seen on some brands of large O.D. forks. Flawless is the word for the cone threading, the washer key-way and yoke fittings.

Champion's main push is in framesets, but they've also developed three handlebars: one for cruisers and two sizes of regular bars. Like the frames, the bars are 4130 chrome-moly tubing. The cross bar is heli-arc'd in place. Our twenty-four-incher naturally had the cruiser bars which measure a width of twenty-six inches with a total rise of seven inches. The sweep bend isn't quite as flat as some of the new styles, and consequently, your forearms don't get cramped on long rides. Our only wish was for a full regulation width of twenty-eight inches. This would allow the individual rider the choice of leaving them wide or cutting them down to whatever width was desired. The bars also feature a knurled clamping area and a flawless chrome plate.

The Ensemble

An issue or so back, we mentioned that the Europeans referred to all the component systems together as a "groupo." The lesson for this month: the Japanese component makers call the same thing an "ensemble." Our Champion was set

up for this test with basically a Shimano DX ensemble (with Takagi MX Cr-Mo cranks instead of the DX). As usual, we were happy with the performance of all the parts, but most of all we were actually surprised by the caliper brake system. For sure, the DX two-finger brake lever finds favor with most of our testers as well as with many top racers, but the calipers, to be honest, have often left us disappointed in the past. But the set we had on the Champion Twenty-four worked as well as any caliper we've ever used. The reach is right in between all the low frames (twenty-four inches or lower) in the cruiser class, like Bassett, Hutch, and Prosignt, and the tallest, the Mongoose 2/4, which stands alone at twenty-eight inches. This mid-height gives the Champion cruiser a unified look, which is exactly how to describe the way it rides: unified. You feel like you're part of the bike,

equally functional and simple to use.

Trail or Track

On the trail or at the track the Champion responds with desirable handling qualities: stable in-line tracking, neutral steering, good balance, and comfortable positioning. Like a true quality bike, riding it is pure fun in the sun (my rhyme for the year, O.K.?). Riding should be fun. For the price you pay for a Champion, it better be.

The top-tube height is about twenty-six inches, which puts it right between all the low frames (twenty-four inches or lower) in the cruiser class, like Bassett, Hutch, and Prosignt, and the tallest, the Mongoose 2/4, which stands alone at twenty-eight inches. This mid-height gives the Champion cruiser a unified look, which is exactly how to describe the way it rides: unified. You feel like you're part of the bike,

confident and in control whether it's in the air or tearing around a corner. It doesn't take a whole lot of moving around or forcing of the bars to get the Champion to click. Certainly it can be forced if you want to. Stuff it into a berm as rough as you like, and it'll take it and move you on in whatever direction you'd like to go.

To us a company shows class when it fulfills functional requirements in a simple, yet original, way. The Champion has this class. It is both daring and provocative without being ostentatious. In the *for-what-it's-worth* department: look at Champion's line-up of bikes. They are all based on one design and incorporate all the same methods of construction. To us that shows that Champion has confidence in its ideas, is willing to commit to them, and stand by them. These days that's hard to come by.

You've heard of a Martini on the rocks, right? Well, this is a Martini, straight up and over the bars rocks, with a twist. While leaning on the bars Aparijo actually touches his visor to the front wheel. . .



. . . On contact the visor blows off his helmet, whereupon our man usually grabs it out of the air! This time he let it go.



Konle on Frame Building

The new Champions are a unique and expensive breed. They are the brainchild of Mike Konle. Over the years he's built thousands and thousands of BMX frames out of his Chatsworth facility. In these recent quotes, Konle discussed various aspects of his designs and methods:

On The Double Triangulation:

"When you land from a jump, imagine as the front wheel hits the ground it wants to spread the wheel-base apart. That five-eighths-inch tube welded in there gives us a straight-pull reinforcement of the head area."

On Welding: "We take more time with our welding to insure both cosmetic beauty and function. We're not high-speed piecework welders. We try to make all the ripples consistent and keep the cross-section consistent. What we go for is an aircraft-quality weld. For instance, we don't allow any undercutting. Undercutting is where if you looked at a cross-section of a weld, the tubing right next to the weld would be thinner than the

tube's original wall thickness. That's no good, a no go. Quality control here is a top priority."

On Welders: "Only about one in ten who answer our qualifications for a welder and take our test are up to our quality standards."

On Plating: "Everything is pre-polished and finish-polished, if necessary, to remove any scale left from the welding. Polishing is of the utmost importance. Say you took a plain piece of metal and started working it repeatedly, bending it back and forth and so on. Eventually, that piece would work harden and break. But if you took that same piece of metal and polished it to a mirror finish, it would outlive the unpolished piece. By polishing the metal you remove any beginning cracks, that exist as surface imperfections, like small scratches or nicks (or any surface imperfection). Those imperfections crack and expand just like an earth fault as the metal is worked."

On Hydrogen Embrittlement That Affects Plated Frames: "It's a critical factor if you are plating a frame that is on the paper-thin edge

of making it. The chemical process of plating causes a case-hardening effect on the tubing, an effect that would cause a marginal frame to crack quickly, but if your frame is over and above the marginal point, chroming doesn't significantly affect it."

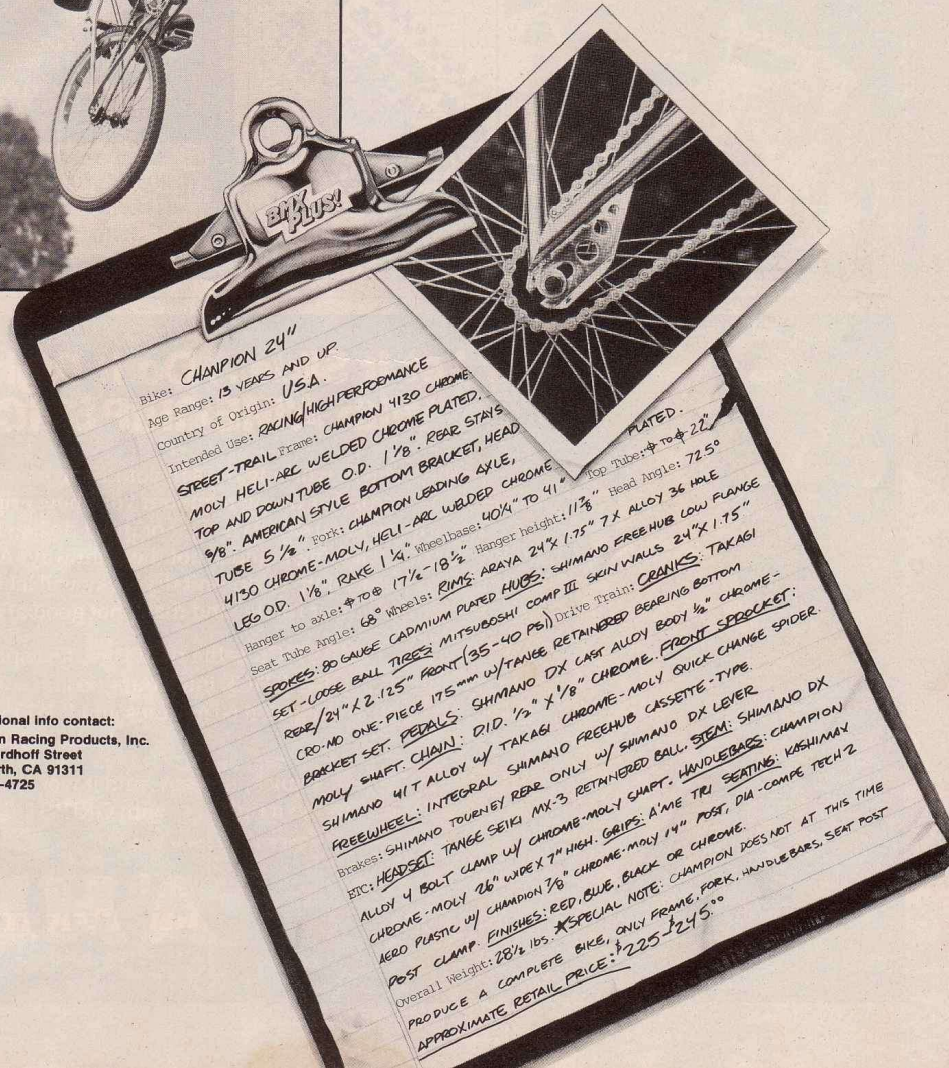
On Rigidity Through Triangulation:

"It has been my experience, in aircraft and in crane booms, the way you get strength is through proper triangulation, not through heavier wall thickness. You can make a frame lighter and equally as strong if it's triangulated correctly. It's the same as a boom on a big crane. They are triangulated all the way out to the tips with small diameter tubing, yet they're as strong as if they were a solid stock six-foot square. But a solid square of solid stock would bend like a garden hose under its own massive weight if you lifted it from one end. At the same time, your triangulated box section would barely sag under its own weight."

On Flex (the importance of frame rigidity): "If it flexes, it work-hardens."



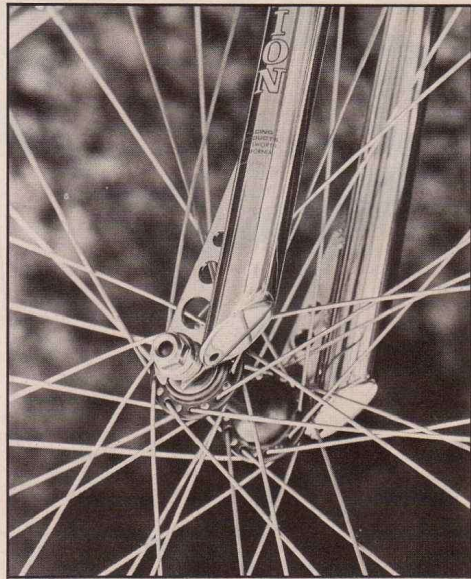
Martin has been known to pick some strange places and unusual times to check our test bike's tires for wear. Just wait till you see his in-air wheel truing! You just don't pull moves like this on a quirky-handling bike.



For additional info contact:
Champion Racing Products, Inc.
20105 Nordhoff Street
Chatsworth, CA 91311
(213) 882-4725



The Champion racing frame is big-city-born-and-bred and incorporates the finest in design, construction and structural integrity. When you combine its street smarts with its country comforts you'll find the Champ will easily handle the slickest city or roughest country terrains.



Now we've seen some nice looking legs in our day but check these out! They're flawlessly finished, 1-1/8-inch-diameter, chrome-moly models with classic slant-line style and leading-axle dropouts.