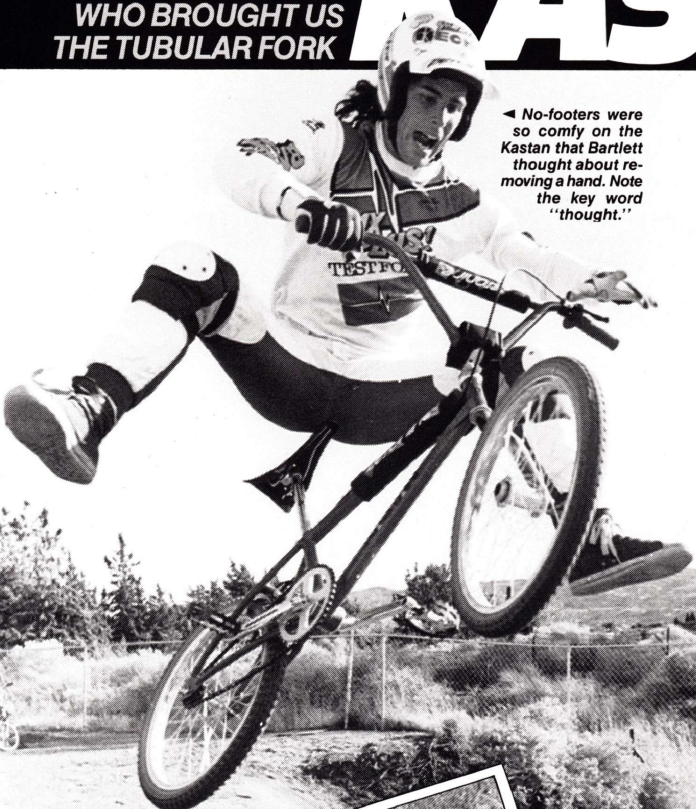
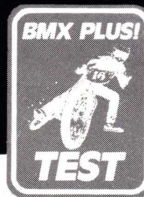


FROM THE MAN
WHO BROUGHT US
THE TUBULAR FORK

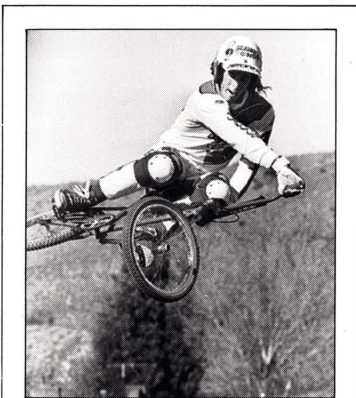
KASTAN

The innovation
of the decade?

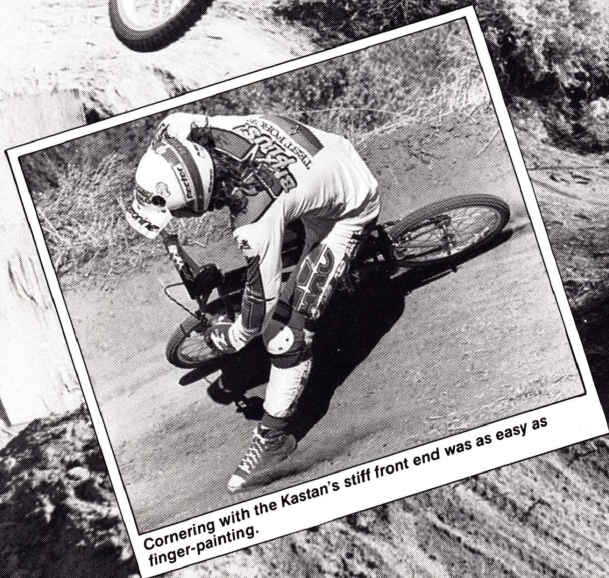
FRAME & FORK SET



◀ No-footers were so comfy on the Kastan that Bartlett thought about removing a hand. Note the key word "thought."



The Butcher, the Kastan and a tucked tabletop. Burly, in the true sense of the word.



Cornering with the Kastan's stiff front end was as easy as finger-painting.

□ On a certain Friday morning in September of this past year, somewhere around five a.m., Linn Kastan woke up with a revolutionary concept! He often comes up with such ideas while lying in bed, but usually he discards them by 6:30. Not this one.

This idea was so important and revolutionary that he went to his shop and began the complicated process of designing and building a working prototype. He worked at a fevered pace and, without the help of his chief engineer, he had that prototype by Saturday.

The idea? The "Uni-Blade," also known as a "Strut." What? Picture in your mind a fork with only one blade. Admittedly, it sounds strange, maybe even an idea thought up by a nutcase. Let's back up a bit and tuck a little about Linn Kastan and you'll see why it's not.

Linn revolutionized the sport of BMX when he created his brainchild, the tubular chromoly fork. That was way back

in 1973, when his company, Red Line Engineering, came into the sport from motorcycle racing. Throughout the following years, Linn and his company came up with many innovations that were nothing short of revolutionary. He created the first tubular chromoly crankset—Red Line Flight cranks—which are still considered by many to be the best cranks on the market. He also created Forklifter bars (which many other companies have incorporated into their own products), the RL20-II frame, which has a dual top tube that wrapped around the head tube and forks with tapered tubing, and several other innovations that helped put BMX technology where it is today.

STRUT, BABY, STRUT

The Strut (it can't be called a fork, because nothing "forks") is .65 pounds lighter than a regular fork and looks like it ought to break or at least flex way easier than a normal fork. Believe it or not,

the Strut is actually stiffer than a normal fork. Why? Because with two fork blades the wheel can twist the fork legs in opposite directions. The Strut has more torsional resistance (less of a tendency to rotate) not only because it has only one leg, but also for a number of other reasons. First of all, the Strut doesn't have a dropout to put the wheel into. Instead, it has a perpendicular tube (axle) welded to it which requires a special hub on the front wheel.

It's a pretty trick hub, too. It has sealed bearings, an oversized shell and a solid spacer that slides over the cross tube and is held in place by a large nut. The spacer means that tightening the nut won't side-load the bearings, allowing for the nut to be snugged up pretty tight. Trickness at its finest.

When the Struts are welded together, as with anything that's welded, a weak spot is created by the stress of the hot weld on the colder metal. To alleviate this stress, after welding, the Struts are heat-treated (like baking them in an oven) at 1600 degrees, then quenched with oil. This doubles the strength of the forks. Chromoly isn't meant to be used in its natural state, Kastan tells us, at 75,000 psi, but can be "tempered" to any strength. After heat treating, his Struts can withstand 180,000 psi before breaking.

CHROME'S ALTERNATIVE

Another noticeable feature is the paint job. The paint, called Imron, is specially made to resist chipping. We didn't want to try it out by beating the frame, so Linn supplied us with a couple of short chromoly tubes to test. The paint proved almost impossible to damage. Huge dents may ruin the frame, but the paint job will still look pretty. Quality costs, though, and at \$45 a gallon, this stuff ain't cheap. It adds a bit to the price, but you get what you pay for. Imron is available in a huge array of shades and colors, and red is the color Kastan liked best for all the prototypes.

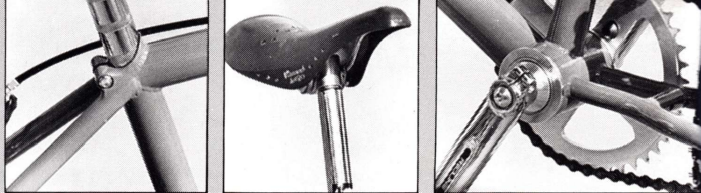
The actual production framesets will come with an oversized head tube and fork stem, along with an adjustable-length stem. The fork stem (a.k.a. the "steerer tube") is 1-1/4" .065 tubing. Ours had a regular fork stem and head tube, along with a normal stem, because the only available oversized setup was at the patent office.

The headset for this oversized head-





Is this the incredible disappearing bike or a product of modern technology? Linn Kastan created this beefy Uni-Blade (or Strut) to be stiffer and lighter than the conventional fork.



Here's the area that requires the most precise welding and longest labor time. Check out the trick unified seat clamp.

The seat is normal, but the seatpost is made of a larger-diameter chromoly tube than is used on most bikes. Buffed stuff.

Yet another Kastan refinement—the ultra-clean, ultra-smooth Technomatic II bottom bracket set.

the fact that these bars are called Forklifter II bars. They have a weird-looking bend that takes some getting used to, but they work well and have some good reasoning behind them. The bars sweep back slightly where most bars do, then almost immediately straighten outward again. They also bend slightly down from the same point, barely noticeable. The FB, or "feel better," bend was designed to make use of the motion of the rider's arm to pull up at a 45-degree angle. The bars run \$35.

The bottom bracket is the new Technomatic II, with the same reasoning as the Forklifter II bars. It works only with Flights, and is designed with high-quality sealed mechanism bearings that can be adjusted "in the living room," because no bearings are exposed. This little gem runs \$120, but it performs up to its cost. It spins smoother than a ballerina on a teflon floor.

SOUNDS GOOD ON PAPER

How does it really perform? The whole setup is designed with the hardcore racer in mind, *not* a street thrasher or hardcore jumper in mind. We knew that, but we wanted to see how well it handled and withstood abuse. It handled pretty well when we saw Jaydee Finney win his class at the ABA Gold Cup last month. How well would it hold up to 210-pound B Pro Richard Bartlett? We figured if it could handle "The Butcher" (a.k.a. "The Destroyer"), it could probably handle anybody. We let him loose on it at his parent's backyard track after building up the bike with parts donated by TIP Distributing. When he first saw it, he was skeptical. "Call it the bike that's going to kill The Butcher," he muttered.

We told him to be careful at first. Kastan told us that the bike was built for serious racing, not radical jumping. But as Richard showed more and more confidence, we coaxed him to get crazier. He was hitting all variations way up at the five- or six-foot mark. He landed *hard* a few times, claiming something felt like it was bent. The front wheel looked a tiny bit out of line, but we weren't sure.

We Plus! staffers each hopped on for a ride. Nothing seemed too bent, but the Strut flexed enough from a few hard landings to bring the wheel close to the

The Kastan "Uni-Blade" is weird to look at (especially when you're riding it!), but it handles at least as well as any other bike. Richard Bartlett proves its air-worthiness. ▶

inside of the Strut upon impact. Looking down and seeing the wheel in full view is definitely odd. Somebody called it "the incredible disappearing bike." One nice thing is that you'd never have to remove the wheel to change a tire or tube. And if you have a pet slug, you can keep him inside the axle-tube.

Bartlett hopped on it again and proceeded to pull every limbless variation imaginable, including the incredible "nothing." When all was said and done, we checked the bike out for bent or otherwise damaged parts. At first all we noticed was a bent pedal cage. Then we saw the real shocker. The Strut was still straight and true, but the Butcher bent the Red Line Flight cranks! We asked Linn about that, and he said that they didn't have the right spindle for the bottom bracket set, so they had to make one, and they had had no time to heat-treat it. The spindle was what actually bent, but it took a lot to bend it.

Bartlett said the frame felt a little small for him (he's about 6'2"), but if the front end was about an inch longer he could probably race it. Kastan explained that he designed the frame to have a shorter wheelbase to handle the tight corners and obstacles on today's tracks. That's why he built an adjustable stem. "A longer stem is more important than a longer frame," he said. "That's why mountain bikers and road racers run longer stems instead of longer frames. Shorter frames handle quicker."

FINAL NOTES

The Kastan frameset is only available as that (frame, Strut, headset and stem), and runs \$260. That's not bad, considering the workmanship involved. Kastan personally oversees each model's construction in his plant in Mexico, seven miles south of the border. The headset, bottom bracket set and bars are available separately.

It's not a thrashing bike, so if you plan on getting a serious racer and want something that looks different and performs, check this pup out. It may be what you've been waiting for. □

