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Designing a bike that would help riders get the best starts possible was the main goal of the Hutch X-Long Pro project. Every angle and every dimension of the final design reflects Hutch's solution to that problem.

Hutch hails from Pasadena, Maryland, a seemingly unlikely place to be the home of the number one team on the East Coast. Pasadena is not exactly what you'd call a thriving industrial metropolis. Instead it is a quiet, serene community unaccustomed to the hustle and bustle of big business. One of the bigger BMX states Maryland isn't, mainly due to its normally cold winter. (I can't imagine snow here in Los Angeles). But when Maryland finally does warm up in the spring it is a tremendously active BMX place.

Racing is what the Hutch Pro Model was designed for. Their first priority was to make a bike to perform on the track. Since most BMX races are won at the start, it only makes sense to put the most effort into that area. To give the rider the best advantage at the start you have to first figure out what things might possibly cause poor starts. The first is obvious: bad technique on the part of the racer. Beyond that, however, one has to determine what would make the difference between two riders of equal skill.

Hutch reasoned that if a bike wheelies too easily it will force a rider to back off. Two pedal starts are the state-of-the-art so the bike must be proportioned to facilitate easy balancing. Many starts have speed jumps within accelerating distance from the gate. Bikes with a laid-back seat post can hinder speed-jumping capabilities by not allowing the rider to get back or low enough. Another problem with getting off the line is excessive frame flex. Longer chains are known to reduce acceleration, and when made longer than necessary, the chain stays can add to the flexing problem.

After extensive testing and research, Hutch developed a line of four models, each one designed to give different-sized riders the maximum benefit of their theories.

The Pro model we got for testing is the model into which Hutch really put all their ideas to full use.

A basic rundown of the Hutch specs in themselves doesn't indicate anything totally spectacular. Perhaps the only really unusual feature is the 37 1/2 inch wheel base (with a useful range of 36 3/4 to 38 1/4). The hanger height is 11 1/2 inches; the top tube is 21 1/2 inches (at the seat mast). The bottom bracket to rear axle is not unusually short at 14 1/2 inches. When you start to put all these dimensions together only then does the total picture come to life.

When the wheelbase is set at its longest possible length (38 1/4 inches), it's long by anyone's standards. Now bring the bottom bracket to rear axle dimension in. At 14 1/2 inches (or 15 1/4 with the axle in it's farthest position) it's slightly on the short side for a normal-length bike. On the Hutch it really makes the

long front end stand out. The short rear end accomplishes two things: it shortens the chain length and it makes the rear triangle stiffer, improving acceleration and reducing flex.

The long front end and 11 1/2 inch hanger height both contribute to keeping the front end from wheelieing. Coming off the line and accelerating powerfully you

will tend to place your body weight over a certain part of the bike. With the long front end of the Hutch that weight placement is farther forward thereby reducing the bike's tendency to wheelie.

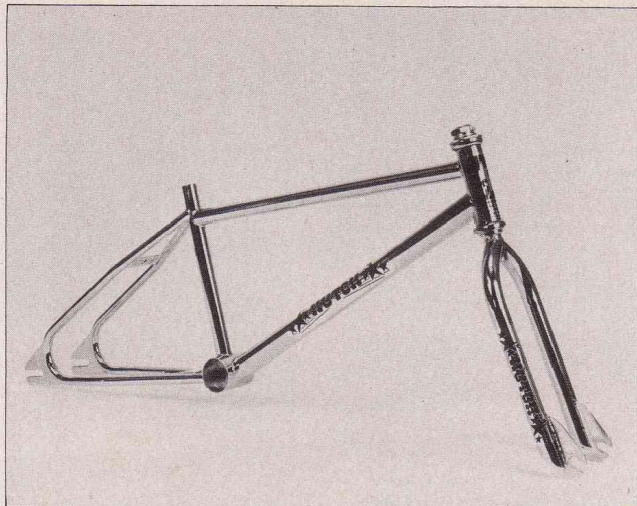
The seat mast angle plays an important role in a bike's ability to speed jump. Since the Hutch utilizes a long front end it is important to angle the seat mast less acutely to keep it from interfering with speed-

jumping technique. Even with the steep seat angle the seating position is very comfortable. It feels well balanced with the long front end during normal riding.

The front end geometry was developed to give the Hutch neutral handling in all instances. The head angle was measured at 71 1/2 degrees with equal size tires. The fork offset is 1.9 inches. The original Hutch forks were designed with "front entry" axle tabs. During our test we were notified that a change in the design of the tabs was forthcoming. The new Hutch forks will have vertical-entry fork ends similar to most other forks.



HUTCH TEST!

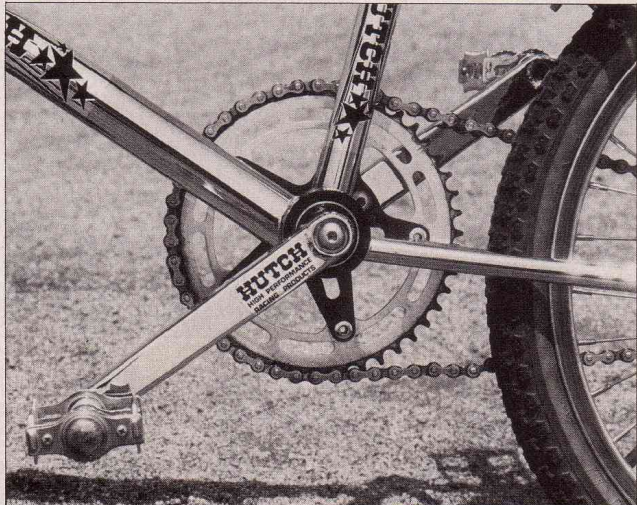


The Hutch has that long lean look. Future forks will feature vertical entry ends. The top tube is standard size one inch while the down tube is 1-1/4 inch size.

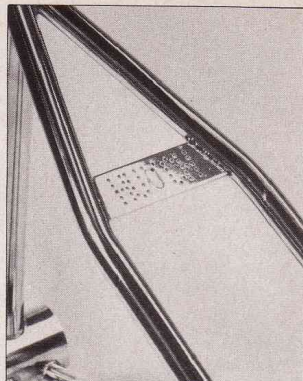
Out test riding and actual race testing proved Hutch's design theories to be very accurate. It performs exactly like it is supposed to off the line. It also performs equally well on any other part of the track. It rides berms in any fashion; sliding, billiard-style (squaring), or tracking. On flat turns the bike's ability to be leaned is only restricted by available traction.

The rear wheel follows the front smoothly and doesn't slide unless you want it to.

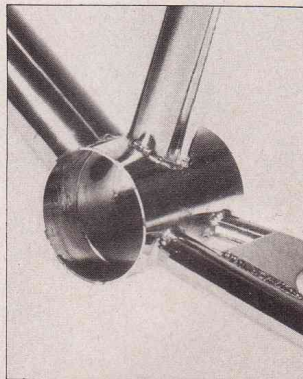
A examination of the craftsmanship on the Hutch reveals excellent welding and a smooth chrome finish. All welded joints match closely and are accurately aligned. Both the headset and bottom bracket are machined for the bearing races.



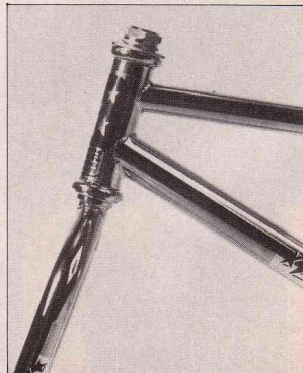
Hutch's answer to the Red Line Flight Cranks. 4130 chrome-moly tubular arms, sealed bearings and a heavy-duty shaft are featured. Look for a thorough evaluation soon.



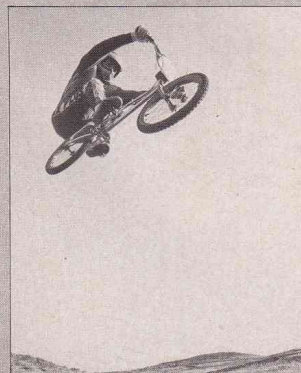
The brake plate has "Hutch" drilled into it. The "t" in Hutch is the brake mounting slot.



The hanger is 1/8th of an inch narrower than normal. The shell is machined deep to accept the Hutch sealed bottom bracket.



The seriousness of the Hutch as a racing frame is evidenced by the absence of a gusset in the head area.



The sky is the limit on the Hutch. Mid-air stability is great, the sign of a true frame.



Kirk sets up for a left-hander after a short power wheelie.



The Hutch is roomy, yet that does not hinder maneuverability.



Assembling a one-piece crank in the Hutch requires that a 1/16 to 1/8 inch spacer be used between the stationary cone and its seat to install the bracket properly. This is because the Hutch crank hanger is 2 1/2 inches wide. The standard width is 2 5/8 inches wide. The hanger was reduced 1/8 inch in width to better accommodate Hutch's custom three-piece-crank assembly (see photo of cranks). The spacing required depends on the one-piece crank and chainwheel set-up used. With our Takagi 175mm crank, MX-SPF chainwheel, and Tange-Seiki BB-220 bottom bracket we had to add a 1/8 inch spacer. Without the spacer the chainwheel will rub on the frame and the chain alignment itself will be off dramatically.

The Hutch frame was designed around a 1.75 rear tire and the chain stays will not allow the use of a 2.125 knobby tire. A 2.125 snake belly tire will fit but only if the wheel position is limited to the last half of the axle adjusting slot.

The brake mount is located perfectly for the use of any 890 or longer caliper brake. The Hutch name is drilled into the mounting plate but it can't be read with a brake installed.

At three pounds, eleven ounces the Hutch frame is very light for its size. It has no frills other than it's a Hutch and that's unique in itself. It is made for racing, not for the pounding of day-to-day thrashing. It can make a good all-around bike, but the heart of this machine lies at the starting gate at your nearest track, not at the dirt lot behind your house.

Specs:

Frame: 4130 chrome-moly, heli-arc welded

Weight: 3 lbs. 11 oz.

Fork: 4130 chrome-moly, heli-arc welded

Weight: 1 lb. 8 oz.

Wheelbase: 37.5 inches

Center BB to Rear Axle: 14.5 inches

Center BB to ground: 11.5 inches

Top tube to ground: 21.5 inches

Head Angle (Rake): 71.5 degrees

Seat Angle: 74.5 degrees

Fork Offset: 1.9 inches

Fork height (bearing seat to axle): 12.3 inches

Trail: 1.3 inches

*Plus or minus .75 inches.

**For more information contact:
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Even when forcing the front end to carve across a berm, the Hutch Pro never twitched or balked. The Pro model is designed for larger riders (5'6" or larger), but even smaller riders find the Hutch easy to handle.