

## Big Test of the COMPETITOR SUPER-CHEETAH

Thundering out of the Arizona desert it came, snarling and slashing.....



Proud, sleek, light.....every inch a racing machine. Check the extended seat tube which eliminates the additional weight of a seat post and clamp. We thought the seat tube might tweak after a time, but it hold firm.

A burnt orange sun was just touching the Santa Monica Mountains as the ugliest van in the world pulled into my driveway. It was himself, James D. Stevens, ace marketing and advertising guy and sometime delivery boy for BICYCLE MOTOCROSS ACTION.

"Didja get it?"

"Yeah, back there."

"Back where?"

"In the back of the van, dummy."

"I'm looking in the back of your stupid van and I don't see it."

"Back there, behind the hack and those boxes of magazines, under the sleeping bag."

"Jeez...."

"I'll get it. Hold these alloy chairs."



La Mirada: Hit the inside berm at speed, lift off while still set for the turn, catch the tail of the outside berm, and explode onto a short straight. No sweat with the Super Cheetah

"What are you hauling this TV around for, anyway?"

"Huh? Oh, I was gonna take it to the dump."

"What in the (beep) is this hydraulic jack for? It must weigh 400 pounds!"

"Well, what am I supposed to do if I get a flat?"

(Beep)

"Hey, slide these boards over, will ya?"

"Boards? What th....."

"Here it is! No, that's my kid's Mongoose."

(Beep, beep)

"Hey, I got it! No, really, I got it this time."

And so, thundering out of the Arizona desert, the Competitor Super-Cheetah came, snarling and slashing at all who would contest its supremacy in the whoops, berms, and jumps.

**JUNE 1977** 



More tight berm work. DeCoster, where are you?

With the Super-Cheetah there just wasn't any doubt at all. One glimpse was all it took. Twenty-two pounds of quivering machinery designed, constructed, and assembled with one purpose in mind: Racing. Flat-out, serious, mind-boggling bicycle motocross competition. Motoflying.

But before we get started, let me



The alloy bars, 80/60 spokes, and alloy rims were never intended for this. Check the text for details.

make one thing perfectly clear. (Who was it used to say that?) This machine is not available as an assembled bike. The Competitor Super-Cheetah frame is manufactured by J&G Mfg., in Phoenix, as a frame only, while the equipment on it was supplied by Laguna Distributors, in Laguna Niguel, California. Of course, if you want a duplicate of this bike, your local dealer should be able to supply the identical equipment, and I'll tell you right out front that this is primo gear.

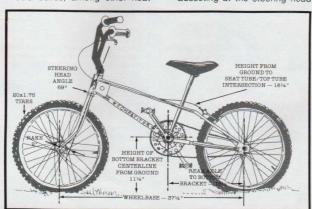
J&G builds, among other neat

things, Competitor frames. Their mild steel frame is known to all and sundry as the Cheetah, while their chrome-moly job is hailed far and wide as the Super-Cheetah, Both possess the same basic configuration, differing only in minor details.

With all that interesting background info attended to let's examine the Super-Cheetah frame. From steering head to dropouts. it's all chrome-moly, heli-arc (MIG) welded. It has two small diameter top tubes in place of the more conventional single top tube.

Gusseting at the steering head

BICYCLE MOTOCROSS ACTION





The Tange forks and Super Cheetah frame disprove that old Chinese proverb of, "If it don't go, chrome it."

is accomplished with two almost square plates positioned outside the frame members to accept a shear-type stress. The advantage of this kind of gusseting is that it adds strength to the steering head area (where most of the stress occurs on a motocross bike), while still allowing enough flex to reduce the possibility of the frame cracking directly behind the gussets.

Had J&G fishtailed the rear of the gussets, the transmission of steering head stress to the frame tubes would be even more gradual and the possibility of frame fatigue in this area even further reduced.

A tricky item on the Super-Cheetah that helps reduce weight is a seat tube that is the proper diameter, and extends up far enough, to clamp the seat onto. Poof! No seat post, no clamp, less weight. All you have to do is whack off the seat tube where you want it.

Weight of the Super-Cheetah frame is 4 pounds 5 ounces. Cost is in the area of 80 frogskins, and it can be had either chrome plated or with a far out gold finish.

Dropouts on the Super-Cheetah are plenty long for changing gear ratios without having to change your chain length. The rectangular tube spacer between the bottom bracket and chain stay loop is long enough to allow the use of just about as large a front sprocket as tickles your fancy.

The low profile of the double top

JUNE 1977



tubes gives the Super-Cheetah a low center of gravity which is a plus in the handling department.

Just behind the seat tube is a frame spacer that is located and drilled to accept a rear caliper brake, perfecto garcia for a freewheel installation. If you have been paying attention, you should have by now discovered that the Competitor Super-Cheetah is an extremely well thought-out frame.

Welding, chrome plating, and ugly places on this frame? Very good, very good, and none, in that

## PROBLEMS WITH ALLOY HANDLEBARS

Aluminum handlebars are intended for racing, not jumping. But, if a flaw in design is discovered when jumping. and then corrected in manufacture. these lightweight bars will be that much safer for racing, right?

Well, we discovered a flaw in the handlebars while jumping this month's test bike. But for his Scott facequard. Don Jones would have had a tweaked nose. The alloy bars sheared off at the crossbar. Maybe I should say we rediscovered this flaw-these alloy bars were not the first we've seen go the same route.

When Rascal bars (and most other aluminum handlebars) are manufactured, the crossbar is joined to the handlebar with an insert joint. This involves drilling a hole in the handlebar. inserting the crossbar, and heli-arc welding it.

This joint is great for some applications, but not for aluminum handle-

The main stress point for handlebars

is the top of the welding bead where crossbar meets handlebar. If this bead separates, it will be for one of three reasons: overstressing, fatigue, or poor penetration of the weld

Once this bead begins to separate, the problems increase at a very alarming rate. With the top of the weld separating and the bottom still intact, any force applied must be supported by the handlebar WHICH HAS A HOLE IN IT AT THE EXACT POINT OF MAXI-MUM STRESS. If anything more than minimal downward pressure is applied at this point, it's adios!

To the manufacturers of alloy handlebars, I would suggest using a butt joint where crossbar meets handlebar. This would leave the main structural member (the handlebar) intact and stronger should the weld begin to separate. To the racers who run alloy bars, I would suggest getting into the habit of glancing at these welds before each moto. If a separation is detected, have it heliarc welded



The Superbyke Tuf-Neck performed without flaw. In fact, when the bars went south after a huge jump, the Tuf-Neck just sat there grinning.

TANGE FORKS: Sharp-looking buggers. Chrome-moly, chrome plated. Strong lug construction at the shoulder. Neat dropouts. 2 pounds 3 ounces. Light-weight, impressive forks. Cost: under 30 dollars.

SUPERBYKE TUF-NECK: A new concept in goosenecks. If it's as good as Superbyke says it is, this gooseneck will be dynamite.

RASCAL HANDLEBARS: Black alloy butterflies. Good fit, good width, good height. Weight: an incredible 14 ounces. Cost: under 13 bucks.

DID CHAIN: Nickel plated, rustless. Able to withstand tremendous forces. Super quality. Some of those Taiwan jobs just don't cut BMX competition. This DID chain does. Cost: less than 6 dollars.

RIMS, SPOKES, AND HUBS: Araya alloy rims. 80/60 double-butted spokes. Fem co alloy hubs with a Shimano 333 free-wheel sprocket at the rear. Weight of the front assembly, and this includes bearings, washers, nuts, axle, and the rubber rim strip, is a super-light 1 pound 12 ounces.

TIRES AND TUBES: Kenda tires, the ones with the Goodyear tread pattern. Weight, each: 1 pound 9 ounces. Tube weight: 6 ounces. Both are 20X1.75's.

SEAT: This has got to be one of the hardest seats in the world. But it is also one of the very lightest. Black plastic. No padding. Brand name: General. Weight with hardware: 15 ounces. Cost: about 5 dollars. This is top motocross equipment, all business, no frills, light, cheap, and tough. To further reduce the weight, drill some lightening holes.

And now friends, Romans, and whoever, we get down to the nitty-gritty. This bike was set up for the most serious kind of BMX competition, so that's how we did a large part of the testing.

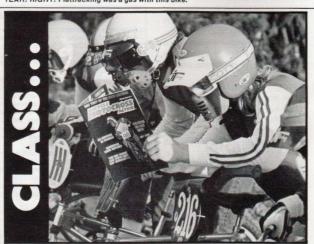
To get it ready for competition, we added gooseneck and handle-bar pads and a number plate. We also pulled the Tourney cranks that Laguna Distributors supplied, and continued on page 41



Yessir. The Super Cheetah flat hauls.



YEAH! RIGHT! Flattracking was a gas with this bike.







## SUPER-CHEETAH

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substituted Dura-Ace cranks and an Addicks sprocket. The reason for the switch was that the Tourneys had the wrong size sprocket, and R.L. wanted to run an Addicks which won't fit on Tourney cranks With these few motofications completed, we headed out for the field of honor.

Bakersfield, La Mirada, Van Nuys, Yarnell, Entradero. The Super-Cheetah has had some kind of fast mileage put on it.

Weight distribution, center of gravity, steering head angle, location of the bottom bracket, and the rest of the frame geometry were right on. Add this to the extremely light 22-pound weight and this machine flat hauls.

I should mention that R.L. has had access to virtually every kind of motocross bike there is. He raced the Super-Cheetah because he wanted to, and that says a bunch for both frame and equipment.

Even though this is a pure racing bike, we couldn't resist trying a few jumps. What we learned was what we already knew; this is a racing bike, not a jumper

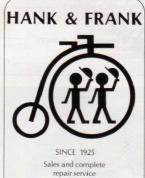
The front alloy rim developed a sudden flat spot with the first hard landing. If we had thought about it. we would have known this would happen. What we didn't expect was the Rascal bars shearing off just above the crossbar. On both sides. For more on this, check the accompanying insert.

The Tange forks performed without flaw. These are obviously top notch equipment.

So far the Tuf-Neck has met all claims made by Superbyke. We have these goosenecks on three BMXA bikes for an in-depth test. They are being raced, jumped, and thrashed. Right now I can tell you that for pure racing, the Tuf-Neck is very strong, and when properly cinched down, allows zero slippage of the handlebars. More on the Tuf-Neck in a later issue.

The Shimano 333 freewheel sprocket was, as everybody





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already knows, perfect.

Before we go riding off into the sunset, one more interesting point. J&G Manufacturers and Laguna Distributors, who supplied this frame and equipment, asked that we find a racer who cannot afford primo racing machinery, and give



him the whole bike. This we are going to do with much pleasure as soon as we have the rim trued and replace the bars. So, before this issue hits the stands, there's going to be some lucky son-of-a-gun with a truly fine motocross bike. And I do mean truly fine!