

SE QUADANGLE

MOTOEXOTICA FOR THE SLIGHTLY-UPPER-MIDDLE-INCOME RACER

BMX ACTION
OFFICIAL TEST

Dawn. Sunlight filters lazily across the horizon. Silence blankets the landscape. Suddenly, movement. A body, belly down, inches a slow retreat. Out of



The OM, provin' he still can. Observing: Buff, Winkle, R.L., Todd, Dave, and the notorious P.K. The bike is the original Quadangle BMXA tested a couple years ago. Scot's backyard in beautiful, urban Long Beach.

danger, the camouflaged scout reports to his commander.

Others, similarly uniformed, wait expectantly for orders. Behind them, the hiss of a radiator, spewing fluids. A puddle forms beneath the squad's cannon-turreted troop carrier.

The commander frowns, then strokes his salt 'n' pepper beard as he listens to his scout. He smiles. Then, nods and waves a JT-gloved hand.

Silently, stealthfully, the militia-men mount their

Yes! It's the camouflage pants'd Factory Commandos. The Combat Kids. Rippin'. Bashin'. Maulin'.

On they come. Their legs churning faster than WFO mixmasters.

On they come. Beacons of hope. Sentinels of sanity.

On they come. Dedicated to a single proposition: That in a world gone conservative, a few must remain totally rad.

Quadness, SE's Quadangle reeks of it. Four different triangles welded



Motoexotica. Frame stylin' here is a product of the 220 volt imagination of the Original Old Man, Scot Breithaupt. Tubing is 531 manganese-moly, a product of TI Reynolds, and trusty as the Lone Ranger.

two-wheeled combat vehicles. The squad crests an enormous slope, pauses, and then dive bombs into the valley. Faster . . . Faster . . . Faster.

Suddenly, in unison, the squad begins chanting:

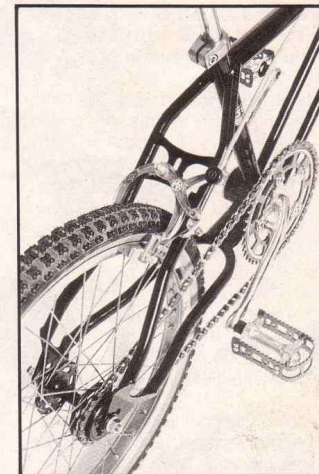
*Birdmen!
Birdmen!
We are the Birdman's Brigade!
Commandos!
Commandos!
Factory Commandos!
Where the OM goes,
We go!*

into a single fearsome frame. Pyramid power gone mad.

The Quadangle looks different. For sure. And its life story is equally unusual. You could call it 40 miles of bad road. Lots of detours.

The Quadangle first became a gleam in the eye of its creator, Scot Breithaupt, back in 1978. The OM, well versed in motorcycle motocross design, pondered an inverted head tube BMX frame.

Inverted head tube? Yes, as in upside down. The top where the bottom should be. The Quadangle's top tube



Lots of good stuff goin' on here: The brake slot is correlated to the drop-out slot for full range adjustments. The drop-outs are bent to fit the slice-cut stays, providing a greater welding surface for more strength and rigidity of the rear triangle. The seat and chain stays are concave to allow plenty of ankle room and a shorter spindle when running three-piece cranks, which contributes to a more rigid bottom bracket assembly and more efficient transmission of human power. Good brakes. Good pedals. Good tires. Good everything.

joins the steering head below the dual down tubes.

How come? It looks different, for one thing. But let's not forget the major motivator. Fighting stress.

The greatest frame stress occurs near the bottom of a head tube where the down tube joins the steering head. On the Quad, though, the lower tube that's subjected to the greater stress is the big beefy top tube. That's why the Quad had no head gussets.

The SE gang began developing

SE QUADANGLE



If the Quad's handling had been less precise, we'd have been talkin' multiple contusions and lacerations for the photog here. Buff on the quad, Oz on the Nikon.

the first prototype in 1978. That development included input from a couple of No. 1 racers. A then not so worn out, old, and spindly Scot, and Stu Thomsen. Stu won some races on the prototype before switching sponsors at the beginning of 1980.

After Stu left, development continued with another brawny, over six-foot racer, Rod Beckering.

The Quadangle came out in the summer of 1980. (A test appeared in the June, 1980 issue.) By the end of the year, SE was knee deep in orders — but short on frames. Productions probs.

Why the delays? Mainly because the OM is a stickler for quality. With all its angles, the Quad's frame is complicated to assemble. SE speci-

fied jig welding to its fabricator. That way, with each frame clamped in place during the entire welding process, the possibility of the frame tubes slipping out of alignment or warping from the heat of welding could be eliminated.

Only, according to SE, their fabricator took a short cut and welded the frames without benefit of jigs. It was Warp City. Spotting this, SE refused to release the frames. When a second contractor failed to measure up,

the Quadangle was shelved, but not forgotten.

Other projects received priority attention. Development of the 24-inch Floval Flyer. Setting up Scot Industries, a manufacturing arm for SE Racing. Since early 1982 Scot Industries, bossed by Mike Devitt, has handled all of SE's chrome-moly fabrication. (Only the aluminum frames are still made by an outside fabricator.)

At this point, Scot decided to resur-

ROD BECKERING

AGE: 17

HOME TURF: Bellflower, California

SPONSOR: SE Racing

CO-SPONSORS: SR, Bell, Grab-On, Profile, Carrera, Dia-Compe, Kool-Stop, Bicycle Source

PERSONAL GEAR:

Bell RT helmet
JT Motopeak visor
Carrera goggles
JT Mouth-Trap mouth guard
SE Actionwear jersey
SE Platoon pants
Vans low-cut tennies
JT wet weather gloves

DIALIN' IN:

Bicycle Source
Lomita, California



Bronco Rod Beckering leapfrogged from privateer to SE factory racer in one swell swoop in the fall of 1978. A year later he climbed on the Quad, and he's hardly been off one since.

After three years, Rod's Quad is pretty well spec'd out. His component choices (that vary from the new stock bike) include GT Pro bars, Pro-Neck stem, Grab-On MX3 grips, Dura-Ace track hubs, Comp III tires, Hutch pedals, Profile three-piece crank (180mm), and Kashimax Aero seat.

"When I first started racing for

Scot, he said I was big as a horse so he called me Bronco because it sounded better." At the time Rod was 13, 5-11, and 180 pounds!

That size helped in football. Rod was a center at Bellflower High until he quit a couple of years ago to concentrate fully on BMX. He's now a senior at BHS.

Rod's most heroic race so far was the 1979 ABA Grand National. He doubled, winning 14 Expert and the Trophy Dash.

In 1982 SE mentor Breithaupt applied his sink-or-swim philosophy to Rod's development. Straight from 16 Expert to AA Pro. Rookie Rod didn't sink. In fact, he snagged a War of the Stars win in Florida.

The Bronco is a training workhorse. (Good thing, because he's addicted to Winchell's donuts.) He rides his bike every day. He does 50 starts every Tuesday and Thursday. He pumps iron. He runs beachers. He does burnout sprints at night.

For weight training he prefers barbell curls and French (behind the head) curls. Rod does two sets of 30 reps with about 65 pounds.

For burnouts, Rod spins as hard as possible as long as possible. He raises his seat ten-speed style to get some leg room. BMXA staffer Steve Giberson often joins Rod for these evening street sessions.

Ask Rod his favorite food and he'll say pizza and Dr. Pepper. And don't forget, a bag or two of Winchell's donuts. His fave movies this past year were *Rocky III*, *On Any Sunday II*, and *Poltergeist*.

When Rod's not BMXing you can find him ATCing or dune buggying in a sand pile. His wheels? A Dodge D50 truck. His dream car is a Ferrari 308.

Rod's immediate plans are junior college and gunning for NBL No. 1 Pro. After his racing days, he'd like to work in the bicycle industry.

Right now, though, you could say that nothing is likely to saddle Bronco Rod's enthusiasm as he bucks for stardom.

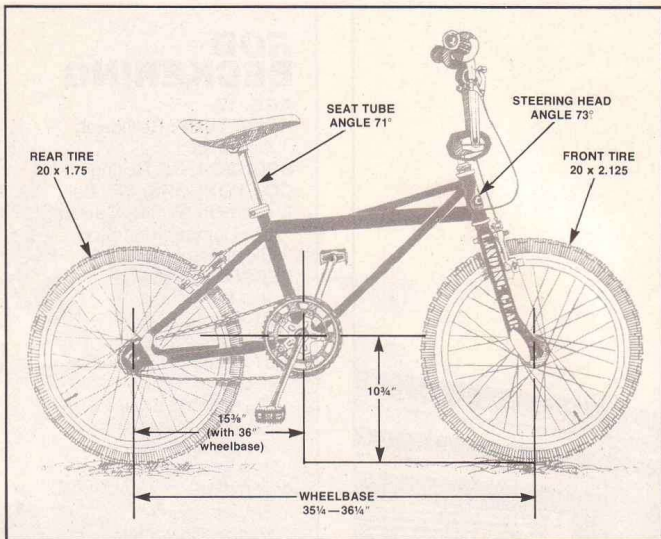
SE QUADANGLE

PRICE & SPECS

COMPLETE BICYCLE PRICE: Approximately \$320.
FINISHES AVAILABLE: Bitchen Black, Bold Blue, Rippin' Red, Factory Flyer, Light Blue, Washboard White.
COMPLETE BICYCLE WEIGHT (without pads or plate): 25 pounds, 7½ ounces.
FRAME WEIGHT: 4 pounds.
FORK WEIGHT: 1 pound, ½ ounce.
FORK RAKE: 1½ inches.
STEERING HEAD TUBE LENGTH: 4 inches.
HANDLEBAR RISE (C/L of stem clamp to C/L of grips): 8¾ inches.
TOP TUBE O.D.: 1½ inches.
DOWN TUBE O.D.: ¾ inch (double tubes).
FORK LEG O.D.: 1¼ inches.
BOTTOM BRACKET TYPE: American.

COMPONENTS

FRAME: SE Racing Quadangle, Reynolds 531 manganese-moly tubing.



CHAIN: Izumi ½-inch, black and nickel.
SEAT: Viscount nylon.
SEAT POST: SE Racing chrome-moly.
SEAT POST CLAMP: SR ME-900 aluminum.
ACCESSORIES: SE Racing safety pads. Optional SE Racing nylon seat cover. Optional SE Racing Killer Kit. Optional SE Racing nylon lever covers.

PERFORMANCE EVALUATION

PURPOSE: Racing, quality street.
AGE RANGE: 14 and over for racing, 12 and over for street. 12 and over for racing with different components.
QUALITY OF FINISH: Excellent.
QUALITY OF WELDING: Excellent.
HANDLING: Quick but predictable steering. Precise. Super responsive to body position input. No surprises in the air. Superb slider.
MISCELLANEOUS COMMENTS: SE always seems to come up with something different. They don't copy . . . It handled good, it's fun to ride, and comfortable. What more can you say? . . . Those big fork tubes and top tube plus the slim rear make it look strong and heavy, but it's strong and light . . . The trickiest thing is the way the rear dropouts are made. The short spacing, the bends in the tabs, the way the stays fit. The whole rear end looks really clean . . . The bottom bracket is really rigid. Everything felt sturdy . . . Those Carlisle tires are excellent . . . It slid perfect and I could steer while I was sliding. I was coming within inches of Oz's camera taking pictures and never hit him once . . . The SE bars are neat.

They'd be excellent for a 14 year old. They're maybe a little low for older riders . . . I could only grab the brake levers with one finger. It was lame. I guess that's why they're going to put the new Bronco Bend levers on it. (Our best bike didn't have them.) . . . When we were doing those front brake endos, the rear end came up real easy. It should be a good bike for tricks . . . I'm thinking about trying one as a trick bike because it's so rigid and light . . . It feels really close in handling to the P.K. Ripper. The Quad's just as good which is great.



TEST INPUT: R.L. Osborn, Mike Buff, Steve Giberson, Scot Breithaupt, Rod Beckering, Bob Osborn, and Len Weed.

FOR MORE INFO

FOR MORE INFO: See your local SE Racing hot shop.
MANUFACTURER: SE Racing
 1667 East 28th Street
 Signal Hill, California 90806
 Tel: (213) 426-6461



And you always thought riding was the hazardous part. If you want excellent photos, you have to get involved. Buff and Oz, tendin' to biz.

rect the Quad, refine it, and have Scot Industries build it. The tail sec-

REYNOLDS 531 MANGANESE-MOLY TUBING

A short lesson in metallurgy. 531 tubing was developed specifically for bicycles. It is available either butted or straight. The Quadangle uses straight tubing.

531 manganese-moly is an alloy. An alloy is nothing more than a mixture of metals to achieve a specific purpose. Like aluminum alloy is extremely light. Chrome-moly is also an alloy.

The metals that are to be combined in a certain alloy are super-heated to their melting points, then mixed, then cooled. And, if you don't mind a bit of over-simplification, that's it . . . you've got your alloy.

Manganese-moly is an alloy of cobalt, high speed steel, manganese, molybdenum, nickel, silicon, and tungsten.

According to the people at Reynolds, 531 tubing will retain a greater amount of its tensile strength after welding than chrome-moly will. It will also absorb a greater amount of flex stress without fatigue failure.

Or to put it another way (remember this is according to Reynolds), with manganese-moly you get more strength per pound frame weight than with chrome-moly, or the same strength with less frame weight.

As near as we could tell from the Quadangle test and previous tests, Reynolds 531 manganese-moly is very close in strength and quality to chrome-moly. But we haven't found any concrete proof that it's better.

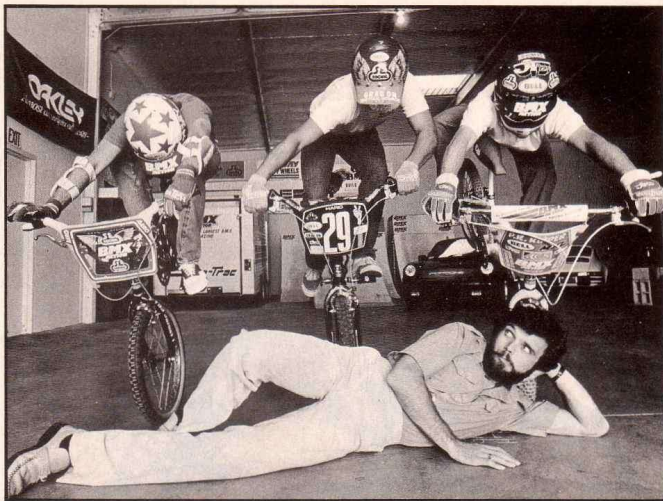
Sure sounds exotic, though, doesn't it?

tion received most of the attention. A complete redesign to improve rigidity.

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The new narrower tail section allows for more ankle room and foot movement on the pedals. In addition, riders can now fit shorter spindle cranks, reducing flex at the bottom bracket.

SE decided to use Reynolds 531 manganese-moly tubing rather than 4130 chrome-moly for the frame this



A Beckering sandwich, closely observed by the prime motivating force behind SE Racing, the manufacturer of the Quadangle.

The angle of the dangle here is to wangle the jangle to afford a new-fangled, star-spangled SE Quadangle to tangle with and mangle those gangly wranglers at your local track.

The Quadangle is available as a complete bike, as a chassis set (frame, fork, handlebar, seat post, and pads), or as a frame only.

The complete bike sells for about \$320. Those totally committed to combat can select the Killer Kit. That ups the tab to about \$595. The Killer Kit includes eight sprockets (39T to 46T), a deluxe tool kit (which includes cone and spoke wrenches), indoor tires, a tire pump, an SE factory Bell helmet, an SE factory style jersey, and the new camouflage platoon pants.

The Quadangle, with its fabrication



The unique steering head arrangement of the Quad. The SR stem was perfecto-garcia.

foulups behind it, should settle nicely into the SE lineup, offering an alternative to the famous and fabulous aluminum P.K. Ripper. The Quad no longer costs a wad of dough, but it's still high on show and go. In short, the Quad's qual. ■



time 'round. (See the sidebar to this article for an explanation of 531 manganese-moly.)

SE applied their "Bologna Cut" to the ends of the multiple-bend seat and chain stays. The stays, increased to 3/4-inch o.d., angle into the rear axle tabs which are bent out to meet them. The end result is a Land-ing-Gear-going-backwards look.

Other refinements:

The slots in the axle tabs were shortened to 1 1/4 inches. Less chance of bends that way. There's still enough room to adjust for front sprockets from 39 to 46 teeth.

A slotted back brake bracket was added.

A fivola spacer (replacing two tubes) was added between the bottom bracket and the chain stays.

The gussets found on the down tube near the bottom bracket on the old version were deemed unnecessary and deleted.

The Quadangle, with its fabrication

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