

RRS TEST!

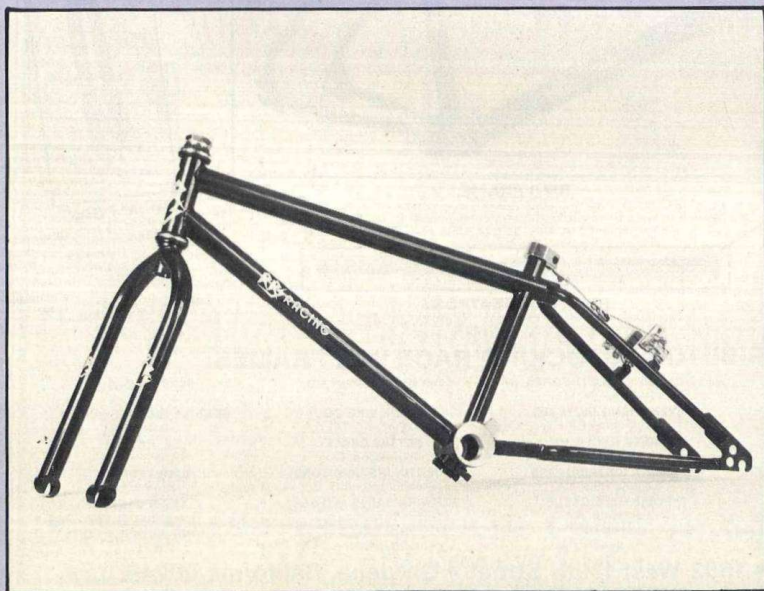
RRS Racing frames and forks are unique and innovative, a combination that is getting to be a rarity these days. RRS actually has made a bike that is significantly different from anything on the market. It's the first full-size production frame with a 10-speed-size head tube, cantilever brakes, vertical-entry rear dropouts and the eccentric bottom-bracket method of chain adjusting.

The first RRS prototype made in 1978 was actually an extensively modified mini GT. Geoff Rutherford rode that bike to many victories including a win in the ten expert class at the 1978 Mongoose Grand Nationals. After reviewing Rutherford's success RRS decided the time was right to concentrate on designing an original frame. Denny Davidow was signed on as a test rider and he eventually provided valuable input towards developing the geometry of the bike. Although Davidow no longer rides for RRS, spokesman Craig Kundig said he was undoubtedly a great asset. He recalls, "Denny is probably more sensitive to geometry changes than anyone else. We'd make some changes, give the bike to Denny for two laps and he'd come in and say something like, 'Hey, the bottom bracket is a half-an-inch higher'. We'd grab the tape measure, spec it out, and sure enough, Denny would be right!"

Although the final proto-type appeared in June of 1979 the first production models weren't released until September of 1980. During those sixteen months the protos were tested by riders like Joe Claveau, Danny Wall and Kevin McNeal. Also during this period all the production problems were ironed out.

Before an RRS frame is delivered it's one of the most thoroughly prepared and inspected frames sold. Each eccentric bottom bracket is hand fitted to each frame. Bottom bracket cups are screwed into the eccentric to be sure the threads are clean. Each frame is sold with a set of Suntour cantilever brakes installed. The Suntour brake pivots are reinforced by RRS during the frame assembly to prevent failures.

The eccentric, the cantilevers and the rear dropouts are all part of the RRS system. Cantilever brakes are used because they are the most efficient rim brakes made. In Europe they are used extensively on tandems and cyclo-cross bikes. The cantilever's main advantage is the increased leverage offered by the independent brake arms. The disadvantage is that they aren't very adjustable. Therefore, moving the back wheel around in a long axle slot isn't desirable. Hence the use of the non-adjustable vertical dropout. With the rear wheel position constant the cantilevers can be set up perfectly.



Pushing the RRS to its limits—
Kirk Claveau at Arlington. Photo:
Ker

To make up for the elimination of the rear axle slot (for chain adjustment), RRS borrowed the use of the eccentric bottom-bracket system from tandems. By mounting a small bottom bracket assembly off-center in a cast aluminum cylinder the chain can be adjusted when the cylinder is rotated in the crank hanger. Two pinch bolts hold the eccentric from rotating in the hanger while in use.

The other unusual feature on the RRS frame is the 10-speed head tube. Length-wise it's a standard four-inch tube. Diameter-wise it's too small for conventional Tange-type headsets. The only headsets that will fit an RRS frame are the lightweight, high-quality 10-speed headsets. The use of this style

headset is becoming more popular but most frames have to be modified to use them. RRS decided to saving the customer the trouble of modifying the frame and made the 10-speed style standard.

The frame tubes are all 4130 chrome-moly. All welding is heli-arc. The top and down tubes have an inch-and-a-quarter outside diameter (same as the head tube). The seat post accepts a standard 7/8" style post. The idea for the seat post through the top tube was borrowed from the original GT used for the prototype.

The front fork of the RRS has very well designed dropouts. They virtually eliminate any chance that the front wheel might slip out of the fork accidentally. The fork is also

heli-arc'd 4130 chrome-moly.

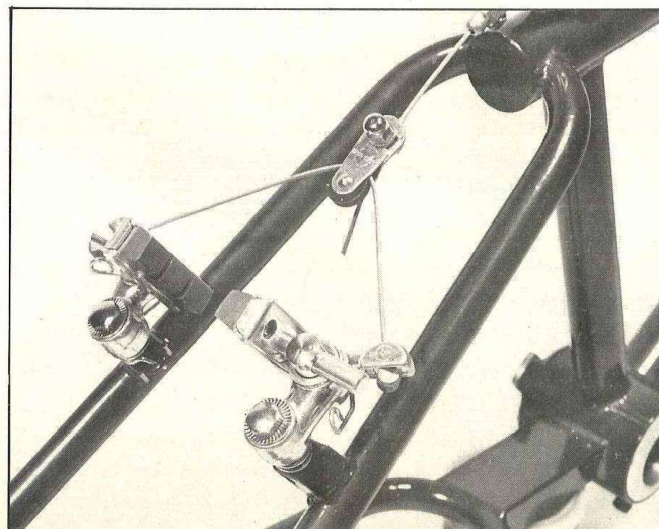
The finish on the frame and fork is electrostatically-applied powdered epoxy paint. It's the toughest paint around, highly resistant to chipping.

Riding the RRS is an experience in precision handling. The front end is fairly light, partially due to the 35-inch wheelbase. The head angle is a relatively normal 72 degrees. The seat post angle is a laid-back 63 degrees, giving the RRS the feel of being a bigger bike than it actually is.

Working on the RRS also is an experience in precise handling. The tolerances on such items as the bottom bracket, seat post, front fork and rear fork are nearly perfect. Working on the bottom bracket is



Kirk Claveau doing his aerial specialty on the RRS. The light front end of the bike requires close attention if you're not used to it. Photo: Ker



Cantilever brakes may offer several advantages over conventional calipers, but the main one is they stop better. Photo: Ker

very easy because the eccentric can be slipped completely out of the frame, while all the necessary work is performed. Then it can be slipped back in. Maintenance can be performed faster and more precisely. Chain adjustments have never gone smoother. The eccentric has a small handle cast into it for leverage. With the pinch bolts loosened the arm can be rotated with a crescent wrench. There's just enough friction between the hanger and eccentric to hold it in place while checking the chain tension. It isn't necessary to have three arms or use any advanced wrestling holds to adjust the chain. The cantilevers are easy to adjust if needed. A 10mm wrench is all that's required. Using a wrench is the preferred method for installing the front wheel in the RRS fork. A combination wrench will work in a pinch.

We had a chance to check out the new RRS 24" cruiser, a bike that RRS devised as a secret weapon for the ABA cruiser class. It has the same general configuration as the 20" RRS but it's scaled slightly larger for the 24" wheels. The bike is amazingly agile. It gives more the impression of riding a 20-inch bike rather than a (26-inch) cruiser.

After spending several weeks with the RRS the conclusion is that it's a high performance race bike. Yes, it handles well and is great fun to mess around on, but it's no toy; it's built to race. For the non-racer to buy an RRS would be an extravagance. The headsets and bottom brackets that the machine uses are expensive and they don't last forever, even when raced (we broke a spindle thrashing around on the cruiser). Of course if you're one to appreciate the trickness and complexities of the most unconventional bikes on the market, this is *the* one for you.

Specs

Frame: 4130 chrome-moly

Weight: 4 pounds 1 ounce

Fork: 4130 chrome-moly

Weight: 1 pound 10 ounces

Wheelbase: 35 inches

Head Angle: 72 degrees

Seat Angle: 63 degrees

Crank Hanger Height: 11.5 inches

Price: (Subject to change)

Frame: \$155 **Fork:** \$44

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