

RANS Creates Fusion

Don't confuse this Fusion with nuclear science. However, this new bike from RANS may cause an equally prolific reaction.

DATE LINE 1989 RANS bike designer Randy Schlitter, in his determined pursuit of less chain length, less wheelbase, designed the R-50, a first attempt at an extra short compact wheelbase recumbent. It sported a wheelbase of only 50" thus the name R-50." The bike was not exactly right, in fact, I never even got to ride it. It was assembled and test rode by our staff, then disassembled and put into storage while I was away on other business. On my return I asked how it worked out and was told more or less the R-50 was "un-rideable". Why I never insisted on a re-test I'll never know, so the R-50 hung from the rafters for 14 years.

Its resurrection occurred this summer. I had been sketching various bike designs and some came really close to the R-50. It dawned on me that it still hung in the rafters at the factory. Maybe I should dust that old frame off and see what was so "un-rideable" about it."

This time around I was not able to find the fiberglass recumbent seat that originally adorned the bike. Instead I hastily fabricated some angle brackets and installed just the seat bottom from our current bikes. The bars were also long gone, so I substituted with a chopped version of our typical T-bars. The first test ride revealed the fork overlap made it like they said "un-rideable". However I liked the basic feel even this rouge version was producing."

With the install of a more proper fork the overlap problem was solved. Now the riding of the R-50 took on a whole new nature. It was rideable, in fact, very much so. The frame with the new fork was a bit low on the BB height, so a crank dig in the turns was likely, but other than that, it was one fun ride. Over the next few days I experimented with bar placement, seat tilt, and location, and started to discover some rather neat aspects of this design.

With the bars set just above the knees, I found even without clips or straps I could dig-in and pull up a hill or jump-start. The effect is likened to the start up dynamics during water skiing. In this frame design the vector of pull on the bars converges with the crank point. This gives the rider a great mechanical advantage up hills, or quick acceleration from a dead stop.

The bar location is a real plus when it comes to carpal tunnel syndrome, there is no pressure on the palms, thus no numb hands! In fact it seems to be best to set the bars just above the knees, so you can lean back and let your arms straighten out. Just for fun in high winds I lean back as much as possible. It feels like less drag, and maybe it is, but I like it because it is so opposite to tucking in on a road bike.

While riding in this leaned back mode, I noticed the shock from bumps was reduced. With the bulk of my weight aft of the seat column it was less likely to shock load the spine. This leaned aft seating position is similar to horse riding with an Australian style saddle, where there is a natural inducement to lean aft a bit during a good gallop. This greatly increased the fun factor of this bike, almost to the point of seeking out bumps in the rode.

The seat is the pan off our regular recumbent. It is simply amazing how well this seat works out. Perhaps the biggest reason is the cushion. We have been testing a new type of seat cushion for the new V2 Formula. This new cushion features a molded foam and fabric resulting in nearly 3/4lbs weight savings. The cushion offers a lower profile, allowing a more sunk into the saddle feel. This worked out perfect on the R-50. With the wide saddle of the seat pan and the contoured shape of the cushion the combination is a natural.



Original R-50 was the basis of design for the new RANS Fusion.

After test riding the R-50, more optimized frames were starting to form on my drawing boards. Two more prototypes were fabricated, both with the retro style of curved tubes. One featured the 26x20-wheel set up of the original R-50; the other boosted dual 26" wheels. The new frames proved to be more optimized than the R-50. Continued tests placed the 26x20 version in the lead, winning it approval for production.



Fusion by RANS, a new way to ride.
The bike is a result of "fusing" uprights with
recumbents.



Spunky handling through these nice tight bars



A stub tube serves as a neat mount from the front derailleur.



Idler mount is machined to saddle frame tube.



A new molded cushion may be the secret to the success of this seat/bike combo.



The bike is the fusion of two great worlds of biking, upright and recumbent, ala the Fusion name. With the ride quality we have high hopes for this bike in both the role introducing new riders to alternate forms of cycling, and to offer the enthusiast a new fun ride. The frame is powder coated, TIG welded 4130 steel frame. The seats will feature the new lightweight cushion, an index seat post and a QR to allow easy adjustment. A quick pin will allow quick adjustment of seat tilt. The bars are adjustable in height for getting that fit just right. An amazing aspect of the Fusion is the range of people it will fit. The frame is sized to fit from 5' to 6'4".



Riding the Fusion

Riding the Fusion starts with a check of bar and seat position. The first thing you will notice, this is a compact bike. The low seat height makes mounting a snap. Simply throw a leg over the back of the seat and you are on. At first you may think the Fusion needs a seat back. However after a little riding you will see that the frame angle is just steep enough to omit the need for a back, but just shallow enough to allow the use that nice wide seat without thigh interference. Remember the carefully designed frame geometry allows the use of the converging angles between the bars and crank. A seat back does little to improve comfort or power transfer.

Position the seat like you would for a road bike. Set the bars to be just above the knees. Seat tilt is best pointed down a bit. In this case you may feel like you are sliding forward when on the bike, but without a foot on the pedal. Placing a foot on the pedal should omit this tendency. Before riding please be sure the bars and seat are secure, you may be exerting substantial pressure on the bars.

Once adjusted give the bike a test ride. You will notice it is instantly friendly, easy to ride. You will experience no focused pressure points on your seat or pressure on your palms. The handling will be solid and responsive. It will be like discovering cycling all over again. The more you ride the Fusion you will notice its traits. Don't be shy go ahead and dig and climb or dart away by simply pulling on the bars and cranking. You will notice the low seat height offers not only terrific mounting ease, so it is easy to sit a stoplight ready to spring into action. Try leaning back letting your arms stretch out. If you encounter a few road bumps, you may notice how this smooths things out.

Riding the Fusion can create a powerful reaction, one of intense joy, like being a kid again. Sure it is not as significant as creating nuclear fusion, but hey it's a close second!

The Fusion will start appearing in the bike shops in a few more weeks. Call your favorite bike shop to get one on order. We welcome your comments and impressions on this exciting new product.

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