# MWB Revival—The Vision R32

## by Robert J. Bryant

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The new Vision R32 is a unique design departure for ATP. Best known for SWB USS recumbents, the design team at Vision has come up with a new departure in the medium wheelbase (MWB) R32. The R32 is an entirely different bicycle than the previous R30 "Metro" and the most important new design that we have seen in a while.

The key to the importance of this true medium wheelbase (MWB) is in the excellent weight distribution (about 65/35, with a range of 30-40% on the front wheel) and road-bike-like steering geometry—which results in better handling qualities than a LWB with the handling finesse of a SWB—without all of the trade-offs of the SWB. There is no boom and buzz-saw chainring sticking out over the front wheel and no heel interference with the front wheel. You can actually see your front wheel and the bike folds and stows nicely. This is nearly a perfect package—though maybe not a perfect package for every BODY.

#### Frame & Build

The R32 has a TIG welded 1.75" diameter 4130 CroMo frame and fork. The tubes are cut, the frame is welded and powdercoated in the Vision factory in downtown Seattle, Washington. We had criticized the Vision weld quality on our recent R40 and the R32 is a definite improvement. The R32 is available with rear suspension utilizing a Cane Creek AD5 air shock or full suspension using the optional Ballistic suspension fork. New for '99 are roller bearing suspension swing-arm pivots as well as a stiffer CroMo swing arm. The suspension on the R32 works better than any Vision we've tried to date. The key to their success is in the MWB weight distribution. The 16" Ballistic suspension fork works great and was a pleasure over my bumpy test course—though it is a rather minimal travel fork.

This Vision model comes in above seat steering only. The R32 has a completely new ASS steering stem, bar and riser. The riser is a beefy and stiff CroMo piece with an Aheadset stem on top. This isn't pretty, but is very functional. The stem telescope adjusts about an inch—unfortunately, not very effective. The ASS stem riser has an adjustment range of several inches.

#### **■** Comfort/Ergonomics

The R32 seat is one item that did come over from the R30 Metro. It has a CroMo frame that slides on a seat track—so there are no boom, boom bolts or chain adjustments necessary for rider adjustment (I love this!). This seat slider works wonderfully. Flip two quick releases and slide it to infinite and quick adjustment perfection. The R32 seat has no recline adjustment—though could use one.

The seat is comfy and works pretty well. The seat shape is very close to the SWB, with the foam base pad insert that covers the seat horn. The primary differences are that the R32 seat is more upright than the old R30 (10 degrees) and especially the SWB and LWB Visions. This combined with a higher bottom bracket makes for a very closed and rather advanced riding position. An odd twist, a "closed" riding position on one of the most user-friendly bikes around.

The Vision seat offers excellent comfort on all models. There are many loyal fans of this seat. The only complaint we hear about it is that our ratings of the seat are not high enough. Larger riders will feel the underside framework of the base more so than lighter riders. We wish that Vision would offer a higher quality piece of foam. The Thermarest air cushion is optional. We have not tested one in years and it was not designed for the bike, but is an aftermarket product.

## ■ Drivetrain/Chain Management

The R-32 has a smooth-working solid drivetrain. The Sachs twist grips easily shift the rear derailleur and 3x7 hub. The KMC chain rolls over

one sprung idler for a very free-flowing drivetrain. Each gear shift was precise though with the heavy weight of our test bike and the friction loss of the 3x7 hub, the bike could have used a lower low-gear. The noisiest aspect of our test bike was the unique optional Vision lexan chainguard/shield. Every once in a while, the chain shock from the shifting of the rear derailleur would "ping" the chain into the shield. In saying this, I was quite surprised at how well the chain shield works. Overall it seemed quieter than a chain tube.

#### **■** Wheels & Brakes

Vision's alliance with Shimano has made V-brakes on Visions expected. The STX-RC linear pull V-brakes work better than on any Vision SWB. We experienced no rear wheel lockup like we found on the '99 R40. Full-on braking power is possible and you'll stop on a dime. This is due to the improved weight distribution of the MWB. We did notice some odd brake features. The front V-brake noodle clearance is very close. With their no-dish rear wheel and asymmetrical frame design, the rear brakes are somewhat out of kilter. Look closely and you will see one pad stud slighty go up, the other down—though they work just fine.

The wheel sizes are ideal on the R32. The rear is the tried, true and beloved 406mm 20" and the front is the "Vision size" 349mm 16". This is the more high performance of the 16" wheel sizes. The bike comes with Vision Primo Comet 85 psi tires. When we think back over the history of recumbent bicycles, we can easily call this tire the best ever for recumbents. Back in 1990, this tire would be considered to die for. Thanks to Vision, Primo and BikeE, this tire now comes in 26", 451 20", 406 20", 349mm 16" and even 305 16" (BikeE AT/CT) sizes.

The downside is that this isn't the world's most durable tire. It is best for enthusiasts riding in pleasant conditions. If you ride real hard or serious, get some Slime, tire liners and keep some extra tires and tubes in stock. The performance aspect of the R32 (BikeE's, and any 16" front wheel recumbent) is directly tied to this tire, the Primo Comet. There are other, more obscure 349mm 16" tires, but they are pedestrian. The Comets were designed as recumbent tires.

Again, the trade-off of the Primo 16 is worth it when all is considered. Calhoun's Luke Breen told me that wife Mary rode Primo 16's flat-free on a recent New Zealand tour (16" SWB model). This tire should be even more dependable on an R32.

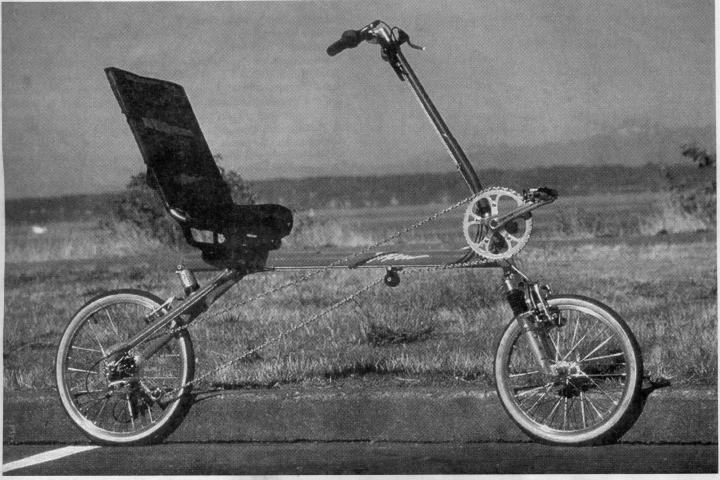
#### **■** The Ride

I think Vision has really hit upon something with the ride of the R32. This new style of recumbents will be a hit—finally, a Vision that I could see the front wheel. There is just something about really LONG bikes that puts many off. SWB can be overwhelming due to the quick handling and awkward USS or heel interference. Compacts can be too entry level with heavy loads on the rear wheel.

The MWB may just be the ticket. When you climb into the cockpit it feels like a fighter plane. The excellent weight distribution and neutral handling puts first time riders at ease, yet makes enthusiasts feel like pushing the envelope. The bike begs to be ridden—anywhere. Point, click and you are there. The R32 offers the best recumbent suspension of any compact, LWB or Vision that we have tested to date. You will be hopping curbs and zooming around over varied terrain like you never have before.

The new Vision suspension geometry and Cane Creek shock offer a very plush ride with little pogo. The R32 is probably at its best in urban situations—though with Vision's options can be used for anything—even loaded touring.

Okay, so we all know that the Ballistic forks are a bit light duty in the suspension "travel" department. This combined with the R32's



The 1999 Vision R32 MWB-Vision

weight distribution makes for a near perfect suspended ride. Everyone who rides a SWB with suspension marvels at the improvement. Imagine reducing the load on the front wheel a bit (as with the R32), the initial suspension "hits" are much less jarring, and then the Cane Creek rear shock trails it over the bump with the back wheel. This is one of the finer aspects of the R32 design.

#### **■** Performance

The R32 handles great and rides well. It has the potential to be an adequate performance bike, though our test bike suffered from sluggish acceleration and hill climbing due to its weight. My suggestion is that performance riders skip the front fork, fenders, kickstand, racks and try to get the weight down. There is no fairing available for this bike—yet. My recommendation is for the fully loaded version with all of the R32-specific options. I loved the 16" suspension fork and how it softened bumps and worked in unison with the rear.

### **■** Touring/Use

The R32 should easily tow a BOB trailer with any kind of load. The Vision bag fits nicely on the back of the seat. Optional Vision pannier racks sit nicely under the seat for a balanced load. No rear rack is available, nor is it necessary on the R32.

#### **■** Options & Accessories

All of our R32 accessories worked excellently. The fenders fit perfectly, the seat bag is an exceptional design and the kickstand held the bike up whenever we needed it.

#### ■ Verdict

Vision's Joel Smith designed the R32. His mission was to make a more user-friendly bike, without a chopper front end, pull-back bars, or a heavy rear center of gravity—and with road bike steering geometry. He wanted a

bike that could be a great entry level bike—but a bike that a rider would never outgrow. The R32 holds more promise than any other Vision design currently being made. It is a design departure unlike any we have ever seen in recumbents. Gone is the boom and fixed seat and allegiance to USS. The R32 is a slick, stylish machine and I do like it. We love the new R32.

Unfortunately the look of the bike suffers in the "engineered design." A curved main tube and less industrial bottom bracket attachment could have made the R32 the best looking MWB around. Mark Colliton (V-Rex, Barcroft and MC2 co-designer) has labeled the R32 as techno-industrial.

Our loaded version was HEAVY. With dual suspension, a bag, pannier rack and fenders the R32 weighed close to 40 pounds (rack, fenders, WB cage)! It is possible to go non-suspended, with no accessories which cuts the weight a few pounds (est. 34.25 pounds).

The bike feels agile and responsive. The only place where it felt heavy was on hills. The heavy weight and Sachs 3x7 hub were noticeable on our loaded machine—though otherwise this bike is a pleasure to climb with. The ergonomics and wheelbase made for easy climbing posture with no odd traits or special tricks required.

One oddity that we find frequently on Visions is chainline manipulation (no-dish rear wheel/asymmetrical frame). On the R32, the bottom bracket spindle is wide. For some reason it feels wider than other models (according Vision it isn't). Some riders commented about acclimation time and the wide pedals—or maybe it's the closed position.

There are a few comments that kept coming up in R32 discussions. The first is that the front end could use a beautification process. The bottom bracket is welded directly to the head tube and steel plates connect the head tube and maintube. It is very functional and makes for one of the stiffest BB's we've ever experienced, however, it looks industrial. Certainly a curved CroMo tube or even a fairing of some kind could have softened the lines of this bike. The next item was the handling. Many told me that it was the best handling and steering Vision that they had ever

ridden-to which I would agree.

There can be a downside to the MWB—some riders will have ergonomic issues with this design:

1. The handlebars and controls can be too far away for some riders. One taller rider complained about the reach (he rides a Vision R40 SWB). 2. Several riders commented that they would like more adjustment in the telescoping stem. The R32 ASS is stiff, tough and works well. The R32 will take any handlebar that you can put into the stem.

3. The R32 has a rather closed (upright seat, higher BB) riding position. The BB isn't really that high. It is equal to or slightly lower than the seat (susp. fork raises front end 1"). It is the upright FIXED seat angle that will be the biggest potential ergonomic issue for R32 customers. Even a few riders that I would consider skinny commented about their legs coming back into their gut. In an experiment, we relaxed the seat mesh for a noticeable increase in comfort. An adjustable seat recline would be our first wish for the R32—though a minor recline would be enough for us. 4. The combination of the fixed seat back, closed pedal angle, and wide pedal Q factor (width of BB spindle) had more than one test rider complaining about knee pain after riding this bike. Our suggestion is that riders consider these ergonomic issues and that test riders/owners break in slowly while getting accustomed to the new riding position.

The benefits to the R32 and this riding position and are many. It is a good power-generating position these ergonomics allow for the excellent weight distribution, braking and steering geometry. This is a very cool bike and we hope they run with it and refine it.

MODEL	
	MWB (medium wheelbase) above seat steering
	54"
	26.5"
<b>BOTTOM BRACKET HEIGI</b>	HT24"/25" (with ft. susp.)
WEIGHT34.25/36	6.25 (suspended) 39 pounds (our loaded test bike)
FRAME	TIG welded triangulated 4130 CroMo
	CroMo Unicrown (optional Ballistic 16" susp.)
STEM/BARS	CroMo riser/alum. aheadset stem/alum. bars
ASS	
SEAT	Alum. frame, mesh back, foam covered base
COMPONENTS	
CRANKSET	Sugino 46-T.
BOTTOM BRACKET	Shimano UN52
	YST 1-1/8" Threadless
	Shimano RX100
SHIFTERS	SRAM/Sachs PG Plus 3x7 7/21 speed
CHAIN	KMC Z9000
CASSETTE	Shimano 11-32 9-speed
	" x 1-3/8", Rim N.A., SS spokes, Primo Comet Tire
WHEEL-FRONT349mm	16" X 1-3/8", Wein. Rim, SS spokes ,Primo Comet
	RX100 (front)/SRAM 3x7 (rear)
	STX RC V-Brakes with Dia Compe PC7 levers
PEDALS	
WARRANTY	Lifetime: frame; seat 1 year
COLORS	
PRICE	\$1295/\$1495 with front suspension
NOTESCheck out the	e new Vision web site: www.visionrecumbents.com

#### ■ Access

Advanced Transportation Products Vision Recumbents Address: 400 Terry Ave N. Seattle, WA 98109 Tel. 87-RIDE HARD (877-433-4273) info@visionrecumbents.com www.visionrecumbents.com

#### ■ Rating

- ✓ Comfort B +
- ✓ Design/Style—B+
- ✓ Drivetrain —B +
- ✓ Chain Management (noise/vibration/chain path)— B+
- √ Brakes/Braking—A -
- ✓ Finish Quality (welds/paint/preassembly)—B +
- ✓ Performance Potential—B
- ✓ **Rider Ergonomics**—Upright seat/moderately high bottom bracket=closed riding position.
- ✓ Best Use—Anything you can think of; urban/fitness is best.
- ✓ Best Rider Type/Size—Seems to fit riders of 5'6" up to just over 6' best. Our 5'4" tester could hold the bike up while seated/at a stop.
- ✓ Weak Points/Upgrades— We would like to see Vision offer an adjustable seat recline and update the looks of the ASS stem and BB area.
- ✓ Market Competition—The only true MWB in the R32 sense of the definition are the Radius C4 and Redbent which we have not ridden yet.
- ✓ RCN Value Rating—B-
- ✓ RCN "Bob" Rating—B

#### Other Voices

▲ Kelvin Clark, Angletech, Woodland Park, Colorado

R-32 Rating: No rating

Very good front end geometry, best of any Vision. Handlebar reach, while adjustable, still only for the long armed. An extended stem insert would be welcome.

# ▲ Luke Breen, Calhoun Cycle, Minneapolis, MN R-32 Rating: C+

The R-32 is probably the best low speed handling recumbent that I have ridden. The large diameter chromoly main tube makes for a very solid feeling bike, yet the rear suspension soaks up the road shock completely. If I want a stiffer ride to minimize bounce at a high cadence all I need to do is put some extra air in the adjustable shock.

What prevents the R32 from getting a grade above C+ are a few minor points. I believe that the seat height is a bit on the high side. The bike is designed for short to medium height riders, yet the seat height might make the reach to the ground a concern for shorter riders. Not many companies have addressed short riders' concerns as well as Vision, so this will likely be remedied soon (maybe even with a seat angle adjustment). Also the chainline makes it difficult to have a wider range of gears without causing the chain to rub a bit. It isn't a problem as it is set up, but I'd like



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the option of modifying the gears.

## ▲ Bob Nohren, The Energy Conservatory Bike Shop, Florida R32 Rating: A

In twenty years in the bike business I've never written a complimentary letter about a product, but the new improved R-32 series Vision has accomplished the impossible in recumbent design. It has made a recumbent as easy to ride, even for the beginner, as a regular bike. No more running along side until the customer "gets the hang of it!" The customers are just getting on and starting off all by themselves! They love it. I've tried many others in the same class of recumbent and the ease of handling and operation of the R32 is light-years ahead of anything else in the recreation class of recumbent.

My customers also like the appearance of the R32 better than most. "At least it doesn't look like a railroad tie and a couple of wheels."

The suspension is something we always like to point out. Once the customer is on, we have the rear wheel placed on a 5 inch curb and ask them to push off with all their weight on the seat. After the initial bounce they always smile not only in satisfaction but in disbelief.

My compliments to Vision in not just trying to make enough of them, but improving them at the same time.  $\Box$ 

✓ Mark Colliton, co-designer Rans V-Rex, Barcroft Virginia and Angletech MC2, Kensington, Maryland.

#### R32 Rating: B-

Let me start by saying that I've been a secret fan of Joel Smith's work for a long time. His first prodution bike, the ATP R20, and his prototype SABRE are just two examples of Joel's innovative thinking. So when I heard that Joel was working on a redesign of the R30 for the '98 Inter-Bike show, I was more than a little curious to get a look at it.

I seldom ask (or in this case beg) Bob to send me RCN test bikes, but after riding the prototype R32 at InterBike I just had to have another ride on a production model. The indoor test tracks at InterBike are not the best place to test any bike, being notoriously tight and slick, so any bike that performs well here is usually worth a second look. After only a couple of laps on the R-32 I was diving in and out of the turns like the bike was a part of me. I was stunned by the way this bike handled. The high bottom bracket and upright seat made it feel like a short bike (SWB), while the open cockpit and longer wheel base give it the stable feel of a long bike. Like a P-38 and a Tour Easy rolled into one. I even had to pull over to take another look at the bike just to make sure I was riding the same one I had signed out. I'm not quite sure what was going on with this industrial look, but its looks disguised one of the best rides I've ever had on a recumbent.

I've had a production version of the R32 for two weeks now and my initial impressions of the bike have changed very little. My six mile commute to work has been completely transformed by the R32. Normally I ride on the road in Sligo Creek Park, but this bike begs to be ridden on the tight and twisting bike path that I usually avoid at all costs. What a blast!



Mark Colliton's RCN R32 test bike #2 with no front suspension. Note: Bottom bracket is one inch lower than the suspension bike



Techno-industrial bottom bracket/ mainframe frame attachment



R32 rear suspension swing arm, Cane Creek shock and pannier racks

So, is the R32 the perfect commuter bike? For some people the answer could be, YES! The R32 does have a fairly tall seat and may not fit short people very well. It could also go on a diet! My rear suspension (only) R32 weighed 34 pounds out of the box. While this is not too bad for a bullet proof commuter, combined with that Sachs 3x7 hub, it feels very sluggish on hills. The R32 also uses a very wide crank spindle to help the pedals clear the front brake and fork. This wide Q factor may not affect your ride at all, but my hypersensitive knees noticed the difference within a few miles (and I regularly ride SWB high bottom bracket recumbents). That said, I still think anyone looking for a commuter/city bike should definitely take an extended test ride on the R32. Even style snobs like me will be won over by this great handling bike. Nice work Joel!

