

MY BIKE: A Lightning F-40

My Practical Production-Made Streamliner

By Wally Kiehler
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BIKE: Lightning F-40 (P-38 with fiberglass nose and fabric body)
PRICE: \$5,400
CONTACT: www.lightningbikes.com/f40.htm

“For racers and high-performance enthusiasts, the record breaking fully-faired F-40 can’t be beat. In fact it holds some 12 world speed records.” — Lightning Cycle Dynamics

Speed can be additive. Last year I saw a used Lightning F-40 for sale on the Internet. These bikes are very rare. They have been around for over 15 years and only 200 were made. Having owned and raced four very different recumbents since 1992, I was feeling the “need for speed”.

The four other ‘bents that I’ve owned are a Linear LWB/USS, a Lightning P-38, a RANS Velocity Squared (V2) and a Bacchetta Strada.

Last December I drove from Detroit to Cincinnati and purchased the F-40 after a two-hour test ride. After riding a P-38 exclusively for five years, I knew that I liked the upright seat position. In recent years I have tested the popular “low racers” but was uncomfortable with the extreme laid-back seat position. I felt that I had to strain my neck to hold my head up so that I could see where I was going, and the head rests I tested would make my head bounce with every bump in the road. I also did not feel safe riding a low racer in automobile traffic because my head was below the car window and I did not think that drivers could see me.

Before I talk about the performance of this bike let me speak a little about how it’s built. The F-40 is basically a P-38 made into a streamliner. The fiberglass front nose cone fairing has aluminum tubing supports. These supports attach to the front of the bottom bracket with hose clamps. When changing a P-38 into an F-40, the bottom bracket has to be sent to Lightning so that a “fairing mount tube” can be welded onto the bottom bracket to support the weight of the nose cone. Lightning will do the welding and will repaint the bottom bracket.

The tail fairing is made and welded from lightweight aluminum tubing. There are four clamps for attachment to the mesh seat and two plastic brackets for attachment to the rear drop-outs.

Stretchy spandex material connects the front nose cone to the rear tail fairing. It attaches to the nose cone with heavy duty Velcro and is sewn perfectly to fit around the rear tail fairing. The spandex totally encloses the rider on the top, sides, and bottom except for the neck and head. There are only three openings in this spandex, for the rider’s head, the rear wheel and the front wheel. Heavy-duty zippers are strategically placed to allow the rider to enter and exit the vehicle in less than a minute. Since the bottom of the F-40 is totally enclosed, there are two “slits” just below the rider’s feet for use when the vehicle has to come to a stop or when starting from a stop. (I have learned how to pace myself when coming to a red light so that I do not have to unclip my pedals and put my feet down.)

My F-40 is built on an older 1991 P-38 chassis. The serial number 166 means it was the 166th P-38 made. The second owner of this ‘bent purchased the F-40 fairing and front shock four years ago. I’m the third owner. The components are almost entirely original. 21-speeds. Bar-end shifters. 16” (349) front wheel. 700cc rear wheel. Everything still works fine. Eventually when things wear out I will replace them with newer technology.

There is one problem that I had to correct. This P-38 came with a 24/46/50 crankset and a seven-speed 12-32 cassette. With the F-40



Wally and his F-40



The F-40 is a P-38 chassis with a fiberglass nose cone (front) and aluminum body work (rear)



The F-40 from the rear

fairing I would "run out of gears" very easily at around 25 mph. I never experienced this problem before with any of my earlier 'bents. I changed the crankset to 32/46/56 and now have plenty of gears to take me as fast as I can pedal "in the flats." I will still "run out of gears" with a strong tail wind or a slight downhill, and I am planning to change to a 11/32 cassette. This gearing is what the newer F-40's run and should be sufficient for me.

Performance-wise, I've never experienced any 'bent like this. I used to average 16-17 mph on my normal local ride on my recumbents without fairings. Now I average 21-22 mph. That's about a 30% increase in average speed. Also this year I have only been passed twice on the road. Both were stronger MHPVA (Michigan Human-Powered Vehicle Association) club members riding their faired low racers.

Friends know that I have purchased and sold 'bents for years and only own one bent at a time. So what I own has to be used for everyday riding, touring, and HPRA (Human Powered Race America) racing. The F-40 gives me the best of all worlds. I can ride safely in traffic (and be easily seen). I can store lots of cargo inside the tailbox. And I can race with the streamliners in the HPRA Racing Series. And if crosswinds become

too dangerous, I can remove the spandex and store it in the cargo box. This 'bent really fits my needs.

And yes. Speed is addictive. ♦

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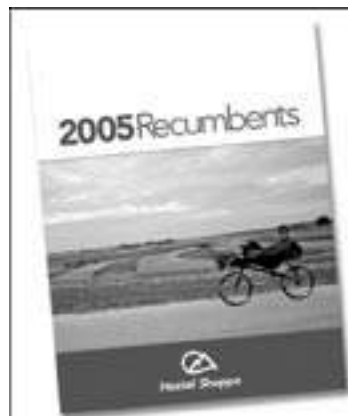


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