

# Testing an AZUB Six with BionX and Pinion

🇸🇪 Sammanfattning på svenska i slutet



## Floating on a Nimbus cloud

I have always named my bikes. Aeolus was my racing bike, named after the Greek god of winds; light as air and fast as the wind. Then there was my sturdy touring work-horse Bucephalus ("Bull's head"), named after Alexander the Great's war horse. I decided that this is Nimbus, white as a cloud, and just as plush!

But to start from the beginning, way back in the early -80s, I had tried a Roulandt semi-recumbent bike, and the concept had been growing in the back of my head for 20 odd years. My first recumbent bike was an AZUB Max, bought in 2008. I liked it a lot, and especially the AZUB trade-mark; the IPS (Ideal Positioning System). This allows you adjust the seat to almost any position you want, by means of sturdy, sliding plastic clamps.



AZUB IPS system

I knew then that recumbents were the way to go, and I eventually upgraded my ride to a more luxurious racing 'bent.

This summer Honza Galla of AZUB recumbents kindly offered me to try out a SIX with some very interesting specs for a month, and of course I couldn't say no to this! The SIX model is the heir of their very first recumbent, but naturally much improved over the years. At first I had some doubts over the 20" front / 26" rear configuration, but Honza convinced me that it handled really well, and of course he was the one to know! The two components that stand out are the Pinion gearbox and the BionX direct drive electric assist, read more about them below. Together they give the bike a very clean look with just one chainwheel and one sprocket. Some people I met thought it had no gears at all. We also decided on some standard components like a suspension fork with lockout, head-rest, Tektro Auriga hydraulic disc brakes, Big Apple balloon tyres, wide mudguards etc.



Suspension fork and strong wheels



Adjustable headrest with handy lamp holder

The starting price for the bike is roughly €2800, and with all these extra goodies it lands at €7200. Is it really worth all that money? Read on for my answer!

## The bike

arrived by lorry at my door, neatly packed in a huge box.



Bike-in-a-box

This is one way of delivery, if there are no dealers nearby. Setting up the bike was straight forward; fitting and adjusting the seat, handlebars, pedals and wheels. The battery is mounted on the side of the standard carrier, but I moved a little further back to make room for my Radical Banana side panniers [see top picture]. The welding and the glossy white paint was immaculate! I'd say it's a huge improvement since my early Max, they have really worked on their quality. As a bike nerd and former bike mechanic, I was impressed by the attention they had put into the assembly.



Flawless finish!

My other bikes have been high-racers with 2\*26" wheels, so the low seat was a new sensation for me. On my other bikes I put the seat in a very reclined position. I wasn't able to tilt it quite as far backwards as I would have liked for really fast long rides on country roads. But I think everybody else will be happy with the possibilities this system gives you when commuting and taking shorter trips. Of course it also depends on your individual preferences, and this is not a pure racing bike.

## **Handling**

is really superb! When I had assembled it I took it for a long evening spin on the forest roads around the Erstavik castle where I live. Well, I don't actually live IN the castle... What a little beast the bike is! Of course Honza was right about the handling! With the full suspension, fat tyres and strong motor Nimbus flew as a white cloud over any sticks and stones nature could throw at us. There is one very bad road that I don't think I have ever ridden up on any bike before. It's steep, has loose gravel, and deep ruts from downpours. With the SIX I rode up with one hand on the bars, taking pictures! Grinning from ear to ear I zoomed past three young fully kitted mountain bikers on another steep uphill. Their jaws dropped when they saw this old geek on a funny bike.

In this configuration with full suspension, wide tyres and widely spaced gears it is not a racing bike. It's more like a Range Rover than a Ferrari. It really shone when riding on forest roads and with camping gear. The fat wheels, dual suspension, battery and electric assist, also adds some extra weight. The centre of gravity is rather far back, especially with some panniers on. This makes it a little cumbersome to walk up stairs and on unrideable tracks. There is a walk-assist mode on the BionX, but it wasn't so easy to control the small throttle in bad terrain.

## **BionX**

I was curious to try the new BionX D series electric assist rear hub. This is direct drive, meaning that it has no internal gears, making it silent, effective and large. [see top picture] I was truly amazed by its power. It is the EU legal standard 250W, but compared to other 250W systems like my velomobile it leaves them standing, literally. I tried them out side by side with a friend, and the BionX had the same kick as my trike, that has lots of illegal Watts. Amazingly enough the range was still incredible, even though the battery is not especially big. I can't understand how they have managed to bend the laws of physics like this. On a long tour on gravel roads with camping gear, I did 80-90km per day on assist level 2 of 4, and by the end of the day I still had 4 of 5 LEDs lit on the battery meter! It must be magic.



Minimalistic controller

The SIX had the basic controller. There is another with more information on. I liked the minimalistic design, you really don't need more information, but at some angles it was hard to see how many LEDs were lit. One thing I liked less with the BionX is that it cuts off very sharply at the maximum legal speed. The regulations allow the system to cut off more gradually.

## **Pinion**

is a very interesting development in bicycle gearing. It is a serious competitor to *ye goode ole* Rohloff gearhub. There are now several versions of the gear box, this was the C1.9<sup>XR</sup>, a nine speed box with a large range of gears. Maybe too large a range for a bike with a strong motor. Even when riding with camping gear in some hills, I was never tempted to use the lowest gears. This is not any of the standard boxes used by AZUB, I think. On paper Pinion is rumoured to have lower efficiency than Rohloff, but I can't say I noticed this. Like the Rohloff, the gear mech is working in an oil bath. This means you don't have to do any maintenance apart from a quick oil change once a year. The shifting is a lot crisper than on Rohloff, and the whole design is very neat. AZUB uses high quality JAGwire cables, they look good and make a big difference. You never miss a gear change, and you can change gears standing still as well. It has a Q-factor (distance between the pedals) of only 166mm, which I like, you don't have to feel like a gorilla on the bike. The shifter grip is good in dry weather, but gets very slippery when wet. I think this has been upgraded now. Having a Pinion drive means you can't have a mid-drive electric assist, but it works great with a rear hub motor like BionX. Having a Pinion on a recumbent makes extra sense. On a "normal" bike you have to have the whole frame custom made to fit the Pinion. With a recumbent you only have to have a special boom, so you can easily retrofit one, or even change back to your old standard bottom bracket. On the whole, the Pinion is a very nice experience I can truly recommend.



Special fitting for Pinion, and handy "parrot perch" lamp holder

## **The tours**

Apart from daytrips and riding to and from work, I also made two tours with the SIX. One was with camping gear from Stockholm, hopping with small ferries between the islands in the archipelago, and sometimes inland, until I came to Åland. It is a part of Finland, and stretches all the way across the Baltic sea between Sweden and Finland. I had originally planned to go all the way to Finland, and by another route back to Stockholm. However, a problem with my toes forced me to cut this short, but it was still a nice tour! In the Banana bags I carried a two-man lightweight tent, a 9 cm inflatable down mattress, a Helinox comfy chair plus clothes etc, in all roughly 10kg. After all, the main purpose of a recumbent bike is comfort, right?





Rough sketch of the planned route. In reality I cycled more in the Stockholm archipelago and on main Åland, but skipped the eastern part



Ancient iron works "Wira bruk" on the Swedish mainland



Small ferry for bikes, flying Åland's own flag



View point Geta, second highest on Åland,  
but actually not very high...

Then I went by car down to Copenhagen, Denmark to have some service done on my Orca velomobile at [Velomobilcenter.dk](http://Velomobilcenter.dk). I brought the SIX along so I could cycle a couple of days while the velo was in the workshop. This time I rode with just a daypack, and brought my biggest tent as a base camp. I had some nice rides in the beech forests and on the winding country roads. It's amazing how rural it is just some 10-15 kilometers from central Copenhagen.



Every road in Denmark has a dedicated cycle path



Beechwood forest and my trusty old  
Campagnolo Record MTB pedals



Taking a well deserved rest

## Summary

I could go into a lot more detail about single components, but then I think you would have lost interest by now. At the base price you get a very competent machine, and as far as I can see it is well built at a competitive price. The customer service and different options you set up in the configurator are excellent. With all the whistles and bells on "my" bike the price more than doubled, but that is to be expected as they are not the cheapest options, but in my mind well worth the extra cost.

So, would I recommend an AZUB SIX? Yes, definitely! It was hard to part from "my" dear Nimbus, and to see that lorry pick it up and roll down the hill...

I made a short film where I ride in the national park Tyresta in the southern outskirts of Stockholm, Sweden. Rough gravel roads, but the SIX floats above that! Filmed with my cell phone on the handlebars, that's where the shaking comes from. The bike floated without any vibrations! Search Youtube for "Testing AZUB Six recumbent bike".

Disclaimer: I have no economic or other relations with AZUB or the other companies mentioned in the text.

## Svensk sammanfattning

Under sommaren 2017 fick jag av Honza Galla på AZUB förmånen att prova en SIX i en månad. Den hade lite speciella komponenter som BionX D250 elektrisk assist och en 9-delad Pinion växellåda. Feta ballongdäck och helfjädrad ram gjorde att den var extremt skön att köra. Den kändes mycket välbyggd med perfekt finish. På AZUBs webbplats kan man konfigurera den efter önskemål. I grundutförande kostar den 25kkr, och med extra allt 70kkr. Cykeln var helt fantastisk att cykla med, speciellt på dåliga grusvägar där den var mycket lätt att hantera. El-assisten var väldigt kraftfull i branta backar, men hade ändå en enorm räckvidd. Efter 9 mil på grusvägar med campingpackning hade jag fortfarande 4/5 kvar på batterimätaren. Pinionlådan fungerade oklanderligt med distinkta lägen. Jag kan mycket gärna rekommendera cykeln!

Feel free to contact me at: [cronholm.pelle@gmail.com](mailto:cronholm.pelle@gmail.com)

Updated: 2019-07-15