

**Hooligan!**

Already after the first few meters, I realized, this is not going to end well...

Eagerly I open the throttle wide open, the thundering, pounding sound of the exhaust and the whizzing wind in my helmet can't overcome my scream of enthusiasm, turn after turn is taken with unheard souplesse and ease, with a cornering speed that is much higher than a stock motorcycle. An abandoned stretch of road lies inviting in front of me, waiting to be abused... With my eyes focussed on a mark in the distance I accelerate full throttle 'till the speedo reads far beyond the 200 km/h. Yes, this bike sure will get me in trouble...

Zodiac took a new M8 Fat Bob and modified it with some relatively cheap, simple but very effective parts, tuned the bike on their Dynojet and the result is amazing, because this bike turned out to be one of the best Harleys I've ever ridden, concerning power, handling and tuning.

Vincent Pels, CEO at Zodiac, built the Fat Bob together with mechanic Charles in the Zodiac workshop, keeping in mind that with affordable, good quality parts the bike should become a pleasant and goodlooking bike, suitable for daily use. In my modest opinion they succeeded more than that! Three issues were addressed, 1. Chassis: the 'handling', 2. Engine: tuning and power, 3: last but not least, the looks.

When you tune your bike, building a high performance engine, something people often seem to forget, is that your chassis is not able to cope with all the (extra) power. Even a stock motorcycle could be, concerning the handling, improved a lot, resulting in a smoother, more comfortable ride with better steering and braking when the suspension is properly adjusted for the specific demands of the rider. Because riding with a good suspension means more comfort, much better handling, leaving the wobbly and wallowing and weaving rides to the past, that turns can be taken faster and tighter, but also very important, that good suspension results in a shorter braking distance, so when you are in an emergency situation your bike comes to a halt quicker, saving extra meters, and while doing so, maybe your life.

Better suspension systems that are well adjusted give you much more control over your motorcycle and optimise the use of your brakes. Zodiac used at the front as well the rear of the bike a kit from Italian suspension specialist Bitubo. Together with Bitubo they developed a kit with the correct shock absorber and spring. In the front end a completely adjustable cartridge with Bitubo springs was used, at the back a Bitubo shock absorber with adjustable preload and rebound. So far the changes made to the chassis.

High performance engines, tuning, everybody talks about it and the greatest stories are being told. If you'd believe every advertisement; 'This exhaust system would gain you 15% more power, that cam 12%, this air cleaner 22%' and so on. Actually, some people do believe it and it's not uncommon to hear people state that their bike has 150 bhp or more, simply because they added up the numbers of said parts, reaching impossible figures. There are engines with a displacement of 2.000cc, hardly putting out 50 bhp - sorry about the investment! An engine that does have 160 bhp, but lacks torque and only delivers power when the tacho reaches 5.000 rpm or up, well, that's useless for street use too. So,

just adding 'fast parts' is useless. Because two things really matter; the combination of parts and tuning of the engine.

Zodiac, as far as I know, is the only aftermarket wholesale company that builds their own motorcycles in their own, in-house workshop, rides them and tunes them on their own Dynojet. Straight out of their own catalog an S&S air cleaner kit, Two Brothers Racing exhaust and a modest Andrews M462 camshaft with Easy Install pushrod kit were mounted and after the installation, the Fat Bob got on the Dyno. The injection mapping was adjusted and tuned to perfection by Vincent himself.

Vincent, who has been among motorcycles with the Zodiac Dragracing Team all his life, has experience with tuning like no other. He explains about tuning the Fat Bob, "We have not focussed on top end horsepower. It always sounds great, these big numbers, but what a rider ultimately wants, is an engine with lot's of torque at lower rpm's, a strong bike that reacts well on the throttle in all rpm ranges. This was the first Milwaukee Eight that we took care of and I must admit that we are very satisfied with the result. Of course, we used a 2-in-1 exhaust system for cool, fast looks and the stainless steel system of Two Brothers Racing gives a nice deep sound, especially in combination with the Andrews camshaft. For tuning we used the proven Diag-4-Bike system, with which our dealers can adjust the o.e.m specs injection, the so-called 'Flash-tuning'. With original engines or Stage 1 tuned engines (only an air filter and / or exhaust) you can choose one of the supplied mappings. This already results in 90% of improvement. However, because we also have another camshaft fitted and we wanted a really optimally running engine, we put the bike on the Dynojet. Our first step was to measure the 'volumetric efficiency' of the engine. You then rev the engine in small steps through all the rpm's and at all speeds and measure how much air the engine receives by measuring the exhaust gases of both cylinders. The injection then knows exactly what the character of the engine is with all the changes that have been made to it. Next you load a new 'Air / Fuel' mapping, indicating how lean or rich you want the engine to run in the different areas. In addition, you also determine how much extra fuel you want to inject while accelerating, how the throttle reacts to the throttle position and at what speed you want the engine to be limited. It all sounds complicated, but believe me, it's an easy job using the Diag-4-Bike system."

The Fat Bob got his own 'face' by mounting a number of parts. A Burly fairing turned out to have exactly the right width for the fat front fork. Zodiac developed a kit that consists out of a 5 ¾ headlight housing, mounting kit for the headlight and the Burly fairing and a plug & play wiring kit. "You just have to change the plugs, one out, Zodiac plug with new wiring for the headlight in, and ready!" says Zodiac mechanic Charles, who shows that fitting the Burly cockpit is a piece of cake. "As headlight we opted for a Vision-X LED with Halo ring and together with the adjustable RST levers, Zodiac 'Argile' grips and a set of Otto di Cuore minimalistic indicators, the Bob got completely different looks."

At the rear, the original large bracket with license plate holder and all lighting was quickly removed. The Zodiac Revox rear light turned out to perfectly fit under the rear fender and a set of indicators from Otto di Cuore, of course also out of the Zodiac catalog, is very discretely mounted on the fender struts. Yet they are minimal, there is an enormous amount of light coming from these small, CE-approved LED turn signals! Zodiac also

developed a custom side mount for the license plate, including the required lighting. A set of PM covers from the 'Formula' series was mounted for the necessary accents.

The bike looks nice, on paper the data look good, but in practice? How does it ride? Pushing the starter button and with a heavy, deep thump from the TBR exhaust, talking further is impossible. A B52 would be jealous and Vincent screams, "We also deliver Euro 4 approved TBR exhausts," and continues with a broad grin, "but this one makes a little more noise!" I nod, put my helmet on and take off. As soon as I twist the throttle, the engine gives a perfect response. I ride down the street and already around the corner I know it, 'this is not going well'. Actually I'm riding just a bit faster than idle... I but feel it immediately, this motorcycle has the balance, has a chassis that's responsive but feels easy, restful, and that's very important for a bike with a powerful engine. After a few kilometers I feel completely at home on this bike, which from the first moment invites one to extremely hooliganistic behavior. The Bob accelerates incredibly smooth and that with a power that brings a sizzling pleasure. Just like pushing the limit with sports and the substance endorphins makes you feel happy, well, you get that same feeling riding the Zodiac Bob, with as an extra bonus being given a huge rush of adrenalin, what a great feeling, what a joy!

And while most tuned H-Ds often show a nervous throttle response, have a power band at an uncomfortable (high) speed and often perform miserable at low rpm's when riding, the Hooligan as I called this bike from the beginning, does not suffer at all from all of this. The combination of the fast engine with the well-adjusted Bitubo suspension only screams for one thing; Full Throttle - Wide F\*ckin' Open!!! Smoothly shifting through the gears there's nowhere a dip in power to notice, when downshifting, the deep rumbling exhaust sound is not disturbed by back firing, at every speed and rpm, the Hooligan picks up very quickly and takes off with great pleasure again. Such good tuning, with such a nice, broad powerband you'll rarely encounter. The exhaust sound is clear, 'crisp' as the English say, a pleasure for your ears, it so beautifully.

I sit down quietly and see what the tachometer says at what speeds. With 50 km/h the Hooligan does 2,000 rpm in third gear, a nice speed to ride relaxed through the city. On the main road it only becomes clear how nice the power band of the Zodiac-modified M8 engine is; riding in sixth gear the tachometer reads 3.000 at 130 km/h, riding 140 with 3,200 it is only 200 rpm more, at 150 it is 3,400 rpm. So it is good to notice that you only slightly have to open the throttle, that the revs only need a few hundred rpm more and you're already riding considerably faster.

Accelerating takes no effort at all with the huge amount of torque available, at 180 km/h the M8 does 4,000 rpm and very quickly the speedo goes well over 210, 5,000 rpm shows the tachometer now and there is still throttle left! This shows that the powerband is exactly in the speed range where you're almost continuously riding. Torque is, as it turns out, really many times more important than just a lot of horsepower. After all, you do not often ride top speed, you're accelerating almost all the time, like at traffic lights or when overtaking and so on.

Speedometers are often (very) positive, so I put the TomTom GPS on the handlebars and did some comparisons. The speedo is actually quit accurate. On the TomTom the screen

really shows 220 km/h, just as the speedo says, when suddenly in the distance I spot a white and blue cop car. Oops ...! Throttle closed, quietly braking and at a snail's pace, I ride as innocently as possible with the throttle almost closed past the uniforms. A friendly smile and waving my hand sometimes helps, yet I see in the mirror that they are coming after me. Shit. After following me two streets, they turn into a different road and I quietly, very quietly, ride home. 'Lucky day', I say to myself, 'I have to ride careful and relaxed tomorrow!'

And that is what I did, it is indeed possible, well, for the first two kilometers... Then Bobbie Hooligan begged me to twist the throttle, suck the gas in and spit it out through the loud TBR exhaust! But this day I shifted my attention very seriously to the suspension. Not to adjust it, but to see how the motorcycle responded under various circumstances. Adjusting was simply not necessary because Vincent and Charles had adjusted the rear shock and the front fork exactly as I would like to have it. Sturdy, almost stiff, with the perfect balance between front and rear suspension, so you can go tight through the corners with full confidence.

Potholes, bends, bumps, ridges, speed bumps and all possible combinations were looked for at lower and higher speeds and I was again and again amazed by the fact of how well the Hooli kept its balance. The bike remained stable and quiet and there was not one moment when the chassis was anxious or even got restless. And come to think of the fact that the Fat Bob is still equipped with the stock wheels and tires! Every time it's a matter of 'getting used to' these knobby tires, but then find out you can still ride along smoothly. Even though I think that with a different set of high performance tires there is even more to gain in terms of steering behavior.

It was agreed that I could ride the Zodiac Bob for over a week, and I have eagerly used every minute to ride the Hooligan on Holland's roads. When after a long drive through the polders, Friesland and Groningen, in the north of Holland, the Burly cockpit is full of bugs. I decide to not clean it for the photos. No, because now you can clearly see that the cockpit offers a decent protection against bugs, rain (yes, I have had enough of that), but also against the wind. Now that the Club Style is so popular these days, I think that many guys who want a fast, good-looking and handling H-D should consult the Zodiac catalog. Or don't you want to ride in front of the pack?!

On the day we agreed to return the bike I call with a stupid, weak excuse, to ask if I can keep the bike a day longer. The next day I leave home early, but only to be able to ride all day! Nice and quiet touring, sometimes behaving like a young kid, passing everything and everybody with wide open throttle, but what ever I want the bike to do, the Hooligan does it, and does it well and the comfort and riding fun is at a very high level. Near Mijdrecht, where Zodiac is based, I see that there is still a quarter of an hour left. So quickly I decide to make an extra round in the neighborhood, and then the Bob really has to be brought back to Zodiac.

The disappointment clearly shows on my face when I take off my helmet. Vincent asks worriedly, "What is it, didn't you enjoy the riding?" "Yes, but I do not want to give it back!" I say from the bottom of my heart. Something that is rarely the case when I return a test bike. Vincent laughs and says, "Come and ride it again when we have done some more work on the bike, we are not ready yet!"

**Text & photography Onno "Berserk" Wieringa Riding photo's G-Rat – Madness Photography**

## **TECHNICAL INFORMATION 'Da Hooligan!'**

### **GENERAL**

**Owner: Zodiac**  
**Builder: H-D – modified by Zodiac**  
**Make: H-D**  
**Model: Fat Bob**

### **ENGINE**

**Year: 2018**  
**Builder: H-D / Zodiac**  
**Displacement: 107 CI / 1750cc**  
**Type: M8**  
**Cam: Andrews M462**  
**Oil pump: H-D**  
**Fuel system: Injection, modified with Diag-4-Bike by Zodiac**  
**Air cleaner: S&S**  
**Ignition: H-D**  
**Exhaust system: Two Brothers Racing 2:1**  
**Transmission and clutch: H-D**  
**Horse power: 109 bhp / 127 Foot pound (172 Nm!)**  
**(standard 75 bhp / 110 lb.ft / 145 Nm at 3.000 tpm.)**

### **ACCESSOIRIES**

**Frame: H-D**  
**Front end: H-D, springs Bitubo, cartridge, fully adjustable**  
**Swing arm: H-D**  
**Rear shock: Bitubo, preload and rebound adjustable**  
**Front wheel: H-D**  
**Rear wheel: H-D**  
**Brakes: H-D / Brembo**  
**Front fender: H-D**  
**Rear fender: H-D with Zodiac tail light and Zodiac side mount**  
**Fender struts: H-D**  
**Fuel tank: H-D**  
**Dashboard/Tacho / speedo: H-D**  
**Oil tank: H-D**  
**Handlebars: H-D**  
**Risers: H-D**  
**Mirrors: H-D**  
**Grips: Zodiac Argile**  
**Switch housings: H-D**

**Brake- clutch lever: RST, adjustable**

**Head light: Vision-X Halo LED**

**Tail light: Zodiac Revox**

**Indicators: Otto di Cuori LED**

**Seat: H-D**

**Forward controls, foot pegs en brake- shift peg: H-D**

**Homemade / Special Parts and/or details: PM 'Formula' cam-, transmission- and derby covers, Burly fairing with brackets and wiring loom 'plug & play' kit Zodiac**

**PAINT: H-D, fairing painted in H-D Black Denim.**

#### **INFO**

**All info at your local Zodiac Dealer.**

**Check [www.zodiac.nl](http://www.zodiac.nl) for all parts, Zodiac has made a special list with all the modifications made on this Fat Bob on their website, including all the part numbers.**