





Company Profile: **Empire Cycles.**

Sim visits this UK bike brand to find out if every empire needs an emperor.

Words by Sim, photos by Sam Needham.

The constant chatter of machines reducing lumps of metal into intricate parts is all pervading. The workshop equivalent of background muzak in a restaurant. At first intensely noticeable and annoying but quickly tuned out by the brain; blending into the environment and adding to the ambience, consciously registered or not.

I'm sitting in the centre of Empire Cycles HQ, which itself is sitting in an engineering workshop on the outskirts of Bolton. Just off the shop floor, Empire is like most bike companies I've visited – unassuming. There's no big glass frontage or neon signs, just a few posters, a bookcase of accounts and product catalogues, a desk and Chris. If an Empire needs an Emperor then Chris Williams is it. The name of the company may have been picked for irony's sake, a bit of fun at the thought of taking a slice from the mountain bike industry pie, but Chris is quite serious about, well, everything.





Singletrack's spycam sees all.

Like a lot of the bike industry's most interesting characters Chris is a straight talker. There's no fluff or padding in his world. He is similar to his creations in that he can come across as unswerving, divisive and full of sharp edges. These are the traits of a person who has passion, passion born out of opinion. Talk to him about UK manufacture, the cycling media or other brands marketing and he'll let you know exactly what he thinks, no holds barred.

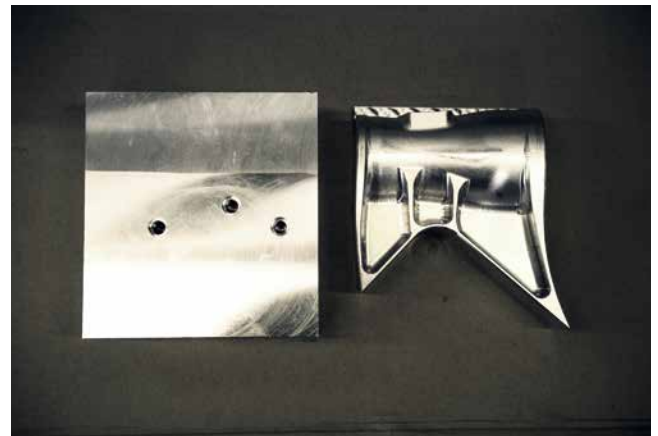
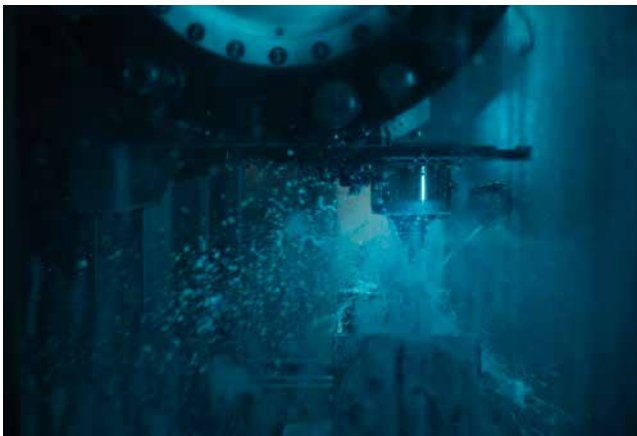
Thinking different.

Empire first came to my attention with the release of the AP-1, a downhill bike that created quite a stir. The suspension was nothing out of the ordinary – a proven single pivot design and the geometry was spot on, but the way it had been manufactured was something totally new to mountain biking. Chris had been working as a design engineer for CCM Motorcycles, and was asked to design the swingarms for motocross bikes. This involved having the swingarms sand-cast in aluminium, a technique common in motorbike

production but something unseen on mountain bikes. Casting has many advantages; it allows complex hollow shapes to be made relatively easily with no welding required. Finished off with machining for absolute precision, the resultant structures are not only incredibly strong but perfectly accurate and, to a certain eye, beautiful too. As a mountain biker this gave Chris some ideas about stepping away from the typical tube and folded sheet fabrication found on most bikes. Casting isn't cheap though and with limited resources Chris was conscious that he had to get it right first time. The resulting cast frame with its smooth curves and angular edges gave a seemingly familiar silhouette an unfamiliar character. Of course, aesthetically, it wasn't everyone's cup of tea, but I get the feeling Chris would rather people had a strong feeling one way or the other to his work than to just passively accept it.

When it came to producing a trail bike many people expected a shorter travel AP-1, but the MX-6 didn't quite work out that way. The 150mm of travel and





Before and after.

aggressive geometry may have been what most people expected but with a machined headstock and swingarm and square-profile tubing the only AP-1 style cast aluminium part was the seat tower. Why did Empire step away from what had become their signature style for their second bike? “I wanted to do a machined version because I thought it would look great and I wanted the bike to be super exclusive and engineered.” The machined swingarm starts out as a 40kg lump of aluminium billet. This seems a horrendous amount of aluminium to have to machine down to produce the MX-6’s eventual skeletal-looking sub-kilo swingarm, requiring not only a lot of initial material but also a lot of machine time and energy, so is this a quite wasteful way of working? “You could argue that point, you could also argue that shipping frames halfway round the world in container ships is not great either.” Touché. A cast swingarm for the MX-6 is in the works though, allowing Empire to make use of the engineering and familial benefits it brings. But what about all those people who have bought an MX-6 and want the new style swingarm?

Fit for purpose.

Loyalty means a lot to Empire. It’d be easy to bring out a new model every year or so with refinements, modifications and extra cost, but Chris wants people who buy into Empire to get the most out of their frames. By making the frames modular it’s possible to use various shock mounts to change the head angle and adapt it to exactly how you want or to change the dropouts from one configuration to another with minimal hassle. Every single piece of Empire’s frames is available as a spare, from the main frame down to the bearings. If something is improved at a later

date, like the new cast swingarm, you can buy it, fit it and have the most up-to-date frame for much less than the price of a new frame. The needle bearings were chosen because they were the best for the application, not the easiest or cheapest to source but the smoothest and most hard wearing. “Do you jet wash your bike?” Chris asks me. Of course I do, I’m lazy. “Exactly! So why do bike companies spec bearings you can’t jet wash? It doesn’t make sense.” Needless to say Empire’s frames are jet wash approved. The term ‘designed for the real world’ may be trite but it’s also very much applicable here: there are no corners cut to hit a price point. The final asking price is

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what it costs to make a frame to Empire’s standards and no less. This attention to detail and UK manufacture mean that an Empire frame is not cheap. Chris concedes this and is looking for ways to bring the price down by tweaking some of the manufacturing process, keen to make sure his frames are aspirational, but realistically so for most people. “I think the logical next step is to develop a 150/160mm frameset or full bike that competes with

other direct-sell brands like YT and Canyon. A great bike, with a great spec, at a great price.” Ambitious plans. I ask if he would be willing to get the frames made in the Far East to make this happen – the reply, as expected, is an emphatic ‘no’. This would fly in the face of his heartfelt belief that we should be investing in engineering





Potential energy.

in the UK. Empire is Chris putting his money where his mouth is. What of 29in and 650b frames – do these feature in Empire’s expansion strategy? “I think from what’s happened so far 29ers are a good option for hardtail and shorter travel full suspension bikes. I think that most longer travel bikes will stick to 26in wheels but I might be proven wrong. As for 650b, again I think it’s a good hardtail or short travel option, I’m going to just wait a little longer to see what direction the standard takes over the next season or so.” And what of carbon fibre, the *matériel d’jour*? Rather surprisingly he is keen to use carbon where appropriate.

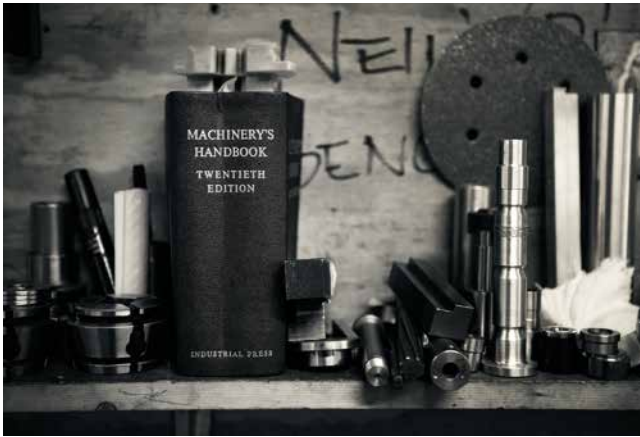
“We’d very much like to manufacture some carbon components; the UK is a centre of excellence for the carbon industry with all the F1 teams and others designing and manufacturing components in the country.” It’s a fair point, the UK has a lot of carbon engineering know-how, but one that is possibly underused and underappreciated by the mountain bike industry, at least for now. It’s also interesting to see that Chris doesn’t feel limited to using what is directly to hand, if it can be done

better, but still within the UK, then he’s all for it. Could there be a carbon Empire frame in the future? Possibly, but don’t hold your breath.

Empirical data.

Chris points at the diagram with finality. The diagram at the receiving end of his finger is part of a study Chris did into 2x10 and 3x9 drivetrains and their effect on suspension action in relation to pivot points. We’ve been talking about the development of the MX-6 and this information has dictated its design. As Chris points out, the drivetrain, and in particular chainring size, directly affects the suspension so why design a suspension system that doesn’t work in harmony with the drivetrain? The resulting 2x10 optimised pivot point placement is, to some eyes, too high, too different to what else is out there. Chris knows he is right though. He has the facts and figures. Chris isn’t the first engineer I’ve met who has been frustrated by fashion, armchair engineers and marketing from other brands that flies in the face of what he knows to be right. Chris knows it’s an uphill struggle, but he’s also not willing to compromise.





What's 'OTOP SECRETO'? Spanish?

Why do it at all if you're going to cop out of sticking to what you believe in?

Being a solid engineer isn't enough to make a brand work though and Chris appreciates that. He also knows from working as a designer at Flow Snowboards that a small team can make a brand appear much larger than it is. All this takes time though and so far he's mostly been concentrating on the product but with the birth of an enduro team, and a new website, he's starting to push the brand. This has its frustrations and competing with established big names is never easy, yet at the same time Chris hopes the exclusivity, made in the UK label, and customer service will make Empire a brand that attracts the discerning rider.

In his other spare time.

When not designing for Empire Chris is also doing work for Merlin, the engineering firm that has helped make the Empire dream a reality. The relationship is symbiotic. Merlin may be the enabler but Chris is always challenging it to do increasingly complex and difficult tasks. By learning new techniques for Empire, Merlin can then offer these newly learned skills to its other customers. And while Empire might be under the same roof as the machines, it still has to fight for time on the machines... machines that wait for no man. A quiet machine is an unproductive machine so there is always something being drilled, ground or cut into existence.

Unsurprisingly this respect for the process for designing

and manufacturing in-house has led to a close relationship with Lancastrian neighbours and fellow metal-whittlers, Hope. Complete bikes coming specced with as many custom laser-etched Hope components as possible to keep the 'made in the UK' theme going. Whereas Hope makes almost exclusively bike components, Merlin makes all kinds of components for all kinds of industries, although the cycling connection doesn't stop at Empire as they have also made parts for Team GB's Olympic bikes.

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It's all white.

It's snowing when I leave the factory with photographer Sam. A blanket of white has covered the car park and the black Empire-emblazoned VW van. The silence that comes with snow seems magnified after the noise of the workshop floor, which up until now I'd managed to blank out. We say our goodbyes and leave Chris to go back to rotating virtual frames in CAD and thumbing through the intriguingly labelled 'Secret Projects' folder on his desk, planning to take over the

world no doubt. The Empire might be small at the moment but empires are all about aggressive expansion, take over and, eventually, domination. ■