

IRON HORSE SUNDAY

£1795

FRAME ONLY

"Dave Weagle's dw-link suspension system may be the single most significant advance in bicycles since the advent of suspension."
—Iron Horse

The Frame

If ever you could accuse a company of not proving their products on the world stage, it most certainly wouldn't be Iron Horse. Since a young Dave Cullinan captured the 1992 downhill World Championship at Bromont (Canada), there has been no stopping them when it comes to racing. During the mid-nineties the Iron Horse team was one of the most dominant on the downhill scene, and thanks to the likes of Rennie and Hill in recent years, they have seen a return to form. You can obviously credit some of this success to the quality of the riders, but you can't argue with the fact that their new bikes really do work.

Iron Horse were looking to push their suspension bikes to the next level, and they realised this was going to require a complete re-think of suspension design. The man who solved all their problems was Dave Weagle, of e.thirteen fame, who licensed them his dw-link. Iron horse now use this design on a wide range of full-susses, but it can also be found in the stables of Ibis and Independent Fabrications, who are also in on the deal. It may look similar to the VPP design that Santa Cruz and Intense use, but it actually works in an entirely different way. Probably the most important difference is that the dw-link does not use a fixed amount of sag to achieve brilliant pedalling characteristics. The way it goes about providing lightening acceleration with virtually no pedal-bob can really be split into two parts. Firstly, the dw-links anti-squat curve counteracts the rearward transfer of a riders mass when they accelerate. This is half of the battle won without the use of any fancy damping technology, which can itself lead to a loss in absolute suspension performance. Secondly, the link deals with any pedal feedback issues by using a smooth and constant positive chainstay lengthening effect to offset the negative gearing effects. This results in a smooth ride with imperceptible pedal feedback in any gear. With all this taken care of, the suspension is just left to tackle the terrain, as it should be.

The fact that this design provides efficient pedalling is not the whole story. Luckily, it also eats up anything from a pebble, to a 20ft drop, with just as much ease. The ability to ripple over small undulations, and yet still handle the big stuff, stems from the well thought out suspension rate curve. The change in axle-path throughout the travel also contributes to this 'do it all' characteristic. The projected instant centre produced by the dw-link also achieves a perfect balance of traction and stability under hard braking, so braking never upsets the suspension. Finally, thanks to the use of short, stiff links and a solid triangular rear end, this design is inherently very stiff without having to use massive amounts of material. As for problems, the only one we could find was that some of the shocks adjustments were a little tricky to access, but that's hardly the end of the world. Excellent value complete bikes finish off a killer deal.

The Ride

A rider's thoughts by Steven Jones

Without getting too involved in a bike test 'love in' it's taken a while but now having ridden a Sunday in anger I can only say that it is an incredibly good bike. In fact I've been lucky enough to ride nothing but very good downhill bikes in 2005 but the Iron Horse has been different from the rest. If people were honest a huge percentage of bikes out there are not really much different from each other in handling terms. They all run the same shocks, maybe shimmed differently and linked giving various



degrees of suppleness at different points in the travel. They vary in the quality of construction and the level of piss taking when it comes to price. Some are massive corporations, others small units making hand built frames. By and large though, a relatively simple vehicle and given similar geometries a good rider could ride anything.

The Sunday has very definite platform giving a marvellously stable ride. When ridden on tough terrain it becomes very clear how Sam Hill destroyed everyone at Pila and Schladming World Cup races. This bike did have a small part to play. You might disagree. Whatever, you're reading my opinion and I've just thrashed it down a pile of rocks for the past five hours and have come back with a smile on my face. The last bike I rode was a Trek; that was good too, but a big track, attacking bike. The Horse gives you the performance that the likes of the Trek and Intense gives you on heavy chunks of land whilst not losing sight of the need to get through switchbacks pretty sharpish. Not that the other bikes do not, just that the Sunday does it better. Hold the Bond theme for a moment.

The sensation is one of standing on a platform parallel to the floor, unlike many bikes where the feel is more of sinking into the floor on the rear. This is good and the Hill riding style makes complete sense when on board. At six foot and thirteen and err, a bit stone the size was good too. 275 spring, 165 cranks and 50mm Sic stem. Had a bloody great laugh all day I can tell you.

Weight wise the Horse was to the gram the same weight as the Santa Cruz, around the 45lb mark. Not light but they should take a fair bit of hammer. Although that said the weight and travel configuration on the Sunday gives a much smoother ride on the harder terrain than any of the other bikes on test here. Well, you did ask.

In summary, personally I'd ride a five bar gate if Dave Weagle (dw-link) said it works, for the man is behind so many well thought, effective designs. The dw-link does have many advantages over other systems but for me it worked in the right places and was balanced, didn't get wrapped up in corners, had remarkably good manners aided by the short strong link plates and, well, how can I say...had a touch of mystery surrounding it that a lot of bikes lack.

FRAME: IRON HORSE SUNDAY
REAR SHOCK: 5th ELEMENT COIL
FORK: ROCK SHOX BOXXER TEAM
HEADSET: FSA ORBIT IS-2, ZERO STACK, W/ E-13 REDUCER CUP
STEM: SIC DIRECT MOUNT STEM
BAR: EASTON EA50 MONKEYBAR, 31.8MM
GRIPS: 'RUFFIAN' STYLE
SHIFTER: SRAM X.9 TRIGGER, 9 SPEED
REAR MECH: SRAM X.9 MID CAGE
BRAKES: HAYES MAG
HUBS: WTB LASERDISC DH, 20MM & 150X12MM THRU AXLE
RIMS: WTB LASERDISC DH
TYRES: MAXXIS MINION DH 2.5
CHAINSET: FSA V-DRIVE EXTREME
B/B: FSA PLATINUM DH SPLINED, 83mm
CHAIN DEVICE: E-13 SRS
CASSETTE: SRAM PG-950 9 SPEED
CHAIN: SHIMANO HG-73
SEATPOST: SDG 6061 I-BEAM
SADDLE: SDG I-FLY C-I-BEAM

SIZES: 16", 17", 18"
COLOURS: BLACK, RED, WHITE, GREEN, GREY

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