





BUELL IS BACK!

On page 34 of this issue you can read the world's first ever test of the next generation Buell, the stunning EBR1100RS. MSL sat the boss man down for a chat.

WORDS: Alan Cathcart

MSL: Erik, in October 2009 Harley-Davidson shut down Buell. Yet four years later, under the 'EBR – Fiercely Independent' slogan you've created a world class superbike out of the bare essentials of the Buell 1125R. When Buell was part of Harley, you created several innovative concepts that ended up getting binned – like the Buell off-road bikes, for example. Is where you are now with EBR where you really wanted to be all along with Buell?

EB: I guess so. What's interesting, and rewarding, is that now we have the freedom to really focus on what our customers want. When you're part of Harley, a really big corporation like this needs to be integrated, and probably quite rightly your creative spark has to be compounded into the larger whole – so you don't have as much independence as you'd like. Okay, they wanted to do a sportbike, but they wanted to make it really different from

other sportbikes, and to make it aim people towards Harley-Davidson. We did a lot of cool stuff in building bikes like that, and I think we did Harley a lot of good – but it did keep us away from the mainstream sportbike customer.

MSL: How did the 1190RS come about? Is it essentially the prototype Buell Barracuda that you were working on when Harley shut you down?

EB: No, it's not, although there were things we were working on with the 1125R that were headed in this direction. After I decided I wanted to get back in the business, I managed to negotiate Harley into letting me obtain some of the tooling and so on they didn't want anymore, so we took what we'd learned from the 1125 series, and then just went forward. So it wasn't a completely new motorcycle from the ground up, but a pretty big jump in evolution from the 1125R – we probably would've never gotten to

this level with the old bike. I also wanted to prove some of the things we thought had value but may not have been fully appreciated, and if we could show they worked in the Superbike world, then people could appreciate that they were good designs – like as the inside outside single front brake rotor, or the fuel in the frame. This is exactly the motorcycle that I've wanted to build for the past 20 years. We finally got it done!

MSL: Is this the first of a series of future EBR V-twin products?

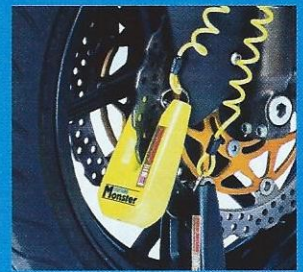
EB: Yes, we're developing a range of high volume, more affordable, streetbikes. We have three in the works, of which the 1190RX we launched at the AIMExpo in Orlando, Florida, in October is the first. The engine won't be exactly the same as the RS but very, very close to it – and this volume production model will allow us to go World Superbike racing next season, as we intend.

NEXT MONTH



YAMAHA MT-09 HOME TURF HERO?

MSL gets up close and personal with Yamaha's MT-09. The question is how does this bike cut it here in the UK?



SECURE YOUR BIKE

We take a look at some of the best security products known for two wheels.

ON SALE
FEBRUARY 7, 2014

EBR 1100RS

SCOOP!

THE EBR1100RS (USED TO BE BUELL)

This is quite something. Think Buell as it was but made a bit sharper, funkier and more interesting than its rivals. In short, Erik B and his awesome-handling bikes are back.

WORDS: Alan Cathcart PHOTOGRAPHY: Kel Edge





Fancy a bit of an anoraky-stat to start things off with? Okay, how about this? ... besides marking Buell's long awaited arrival on the world

stage, the 2014 racing season will see the first all-American motorcycle to compete in WSBK.

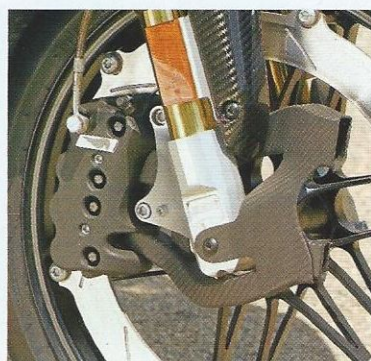
The bike is Erik Buell Racing's (EBR) water-cooled dohc 72° V-twin.

The engine was originally designed by Rotax in Austria for use in the now defunct Buell 1125R sportbike, but is now built in evolved guise in EBR's factory in East Troy, Wisconsin, mainly (but not exclusively) from components supplied by Rotax, then fitted in a Chicago-made monocoque chassis bristling with examples of the innovation Erik Buell is known for.

But that's not the only significant landmark that the EBR's arrival will represent – for adorning the sides of its sleek fairing will be the name of one of the world's largest motorcycle manufacturers, India's Hero MotoCorp, which produced 6.2 million powered two-wheelers in 2012, and in July this year purchased a 49.2% share of EBR's equity as part of its strategic realignment in the wake of its divorce from Honda.

Okay, better to come clean and own up to the fact that the last time I rode a motorcycle built in East Troy was when I became the last person ever to ride a factory Buell road racer under Harley-Davidson ownership – and the last to crash one, too...

Back in October 2009, after completing a 30 lap test at Barber Speedway aboard Danny Eslick's AMA title-winning Buell 1125R, I crashed the prototype Buell 1125RR factory Superbike I'd also been invited to sample, and wound up in the University of Alabama Hospital in Birmingham. Five days later, Buell was out of business – and no, the two things weren't connected...



Rim mounted discs look great and perform well.

First Rides

It must have taken some faith on Erik's part to give me the keys to one of his limited edition \$46,000 EBR motorcycles for a day, and allow me to become the first journalist to ride one on the street, as well as cutting some laps at the nearby Blackhawk Farms racetrack just over the Illinois state line. Glad I returned it in one piece this time around.

THE RIDE

Slinging a leg over the 1190RS's 775mm high seat in the EBR parking lot, it seemed pretty tall, even with the thin foam seatpad, though I could just put both feet flat on the ground at stop lights.

The riding position felt compact but not overly cramped for a taller rider. You feel tucked in tight aboard it, with space to squat behind the screen along the Blackhawk straights or Interstate freeways, where the screen's broad, flat shape deflected air adequately from my helmet, same as the broad fairing covered my shoulders.

The handlebars were quite pulled back and fairly steeply dropped, but they are multi-adjustable – apparently this is the way European riders like the bike, according to EBR engineers, whereas Americans prefer a flatter, higher spread to give them more leverage in turns. The footrests are non-adjustable, but were positioned just right for me.

Thumb the starter button to fire up the motor, and get ready for

Don't pretend you don't want one.



The dash, the damper, the Öhlins. The Buell is littered with desirables.



The offset TTX36 Öhlins rear shock gives a clue as to the refined handling you can expect from this beauty.

that great-sounding exhaust to start making the sound of thunder – for this is a true twin of the old school, where the earth moves when you blip the throttle, even if it's adequately muffled for street use and to avoid upsetting your neighbours. There's no significant vibration thanks to the triple counterbalancers, and while the engine sounds meaty and lusty at low revs, as soon as you get it revving above 7000rpm on the clear-reading AiM dash's digital tacho, the thunder becomes a howl, and the EBR picks up engine speed very fast – but also very smoothly.



The beefy looking frame is in keeping with Buell's heritage.

In detail: EBR 1100RS

1984
the year Hero
Honda was
founded

46
the percentage
market share
Hero has in
the massive
Indian market

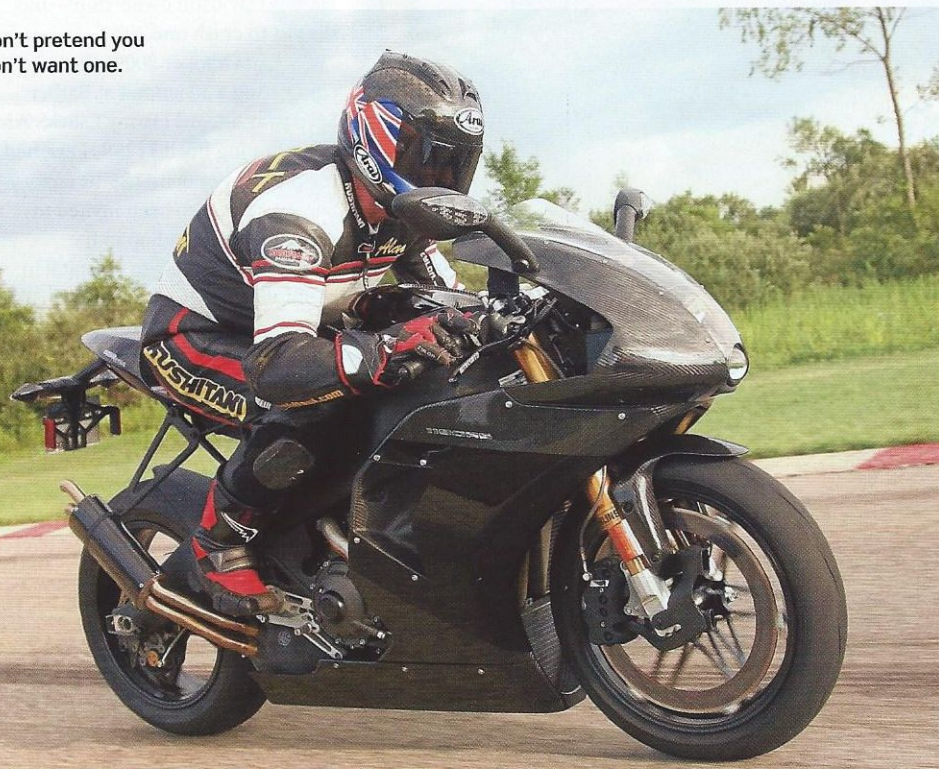
There's a melodic whine from the transmission, too, thanks to its straight cut gears as well as the idler wheel on the bottom part of the chain run, that's part of the EBR conversion kit to switch from belt final drive to chain. This is an extremely emotive-sounding motorcycle, and a potent one, as well.

With its lighter new crank assembly, this big-bore version of the Rotax-designed engine definitely has reduced internal inertia compared with the smaller 1125R Buell motor it's derived from, which means the revs start to mount very fast once you reach that seven-grand threshold to serious power, and torque.

On the 1125RR Superbike I put through the crash test, the hit of midrange drive came much higher, from 8500rpm upwards, which means that on the even meatier 1190RS, gear-changing is something of an optional extra. It'll pull cleanly away from rest with very little clutch, but won't accept wide-open throttle without any transmission snatch until the revs pass the 4000rpm mark.

While it's very tractable there isn't any serious grunt until three grand higher – then it takes off, with a totally linear and pretty uncompromising pull towards the hard-action 11,500rpm rev limiter (no RBW digital throttle, remember). However, although this step in the power and torque delivery is really noticeable, the transition isn't so fierce that it causes undue grip problems for the

The Terminator got house-trained.



SUSPENSION

There's fully adjustable Superbike-spec 43mm Öhlins fork delivering 120mm of wheel travel at a steep 22° rake, with a mere 86mm of trail, with a fully adjustable Öhlins TTX36 rear monoshock that's offset to the right, whose cantilever action is devoid of any link. Ride height can be varied over a 12mm range.

FRAME

This uprated engine is solidly mounted in an all-new monocoque frame manufactured in Chicago from a welded-up array of four aluminium castings and four stampings - just two stampings are carried over from the 1125R, says Buell. This contains 17.1 litres of fuel (including a three litre reserve after the red light), which is carried within the twin frame spars wrapped around the motor.



WHEELS

Lightweight cast magnesium front wheel made by M&A Castings in Michigan for EBR, which replaces the much heavier Chinese-made ZTL aluminium one on the 1125R, with a 6in rear - again cast magnesium on the Carbon Edition version.

ENGINE

The Rotax-developed water-cooled 72° V-twin dohc eight-valve Helicon engine powering the EBR 1190RS made its 2007 debut in the Buell 1125R streetbike, as a step up in performance from the air-cooled Harley-built powerplants which until then had powered all Buell streetbikes.

FINAL DRIVE

The 1125R's original belt final drive has been converted to chain, with a new design of swingarm, albeit a cast aluminium structure rather than still lighter magnesium, which even when forged would be too flimsy. The longer swingarm extends the wheelbase to 1407mm from the 1125R's stock 1384mm.

rear Pirelli Diablo Supercorsa SP tyre - which is just as well, since the EBR 1190RS is a TC-lite zone.

Even exiting Blackhawk's pretty slow turns at either end of the pit straight, the V-twin Superbike engine - which like Arnold Schwarzenegger was born in Austria, but has now become a naturalised US citizen - drove smoothly out of the apex, but not at the expense of a brusque response. There was a controllable pickup from a closed throttle as the front wheel reached lazily for the sky every lap with the EBR slightly leaned over exiting the turn. Just a brief shimmy of the front wheel, and normal service was swiftly restored.

Fuelling on the EBR is outstandingly good - I tried very hard to make it stutter or hiccup, but it remained

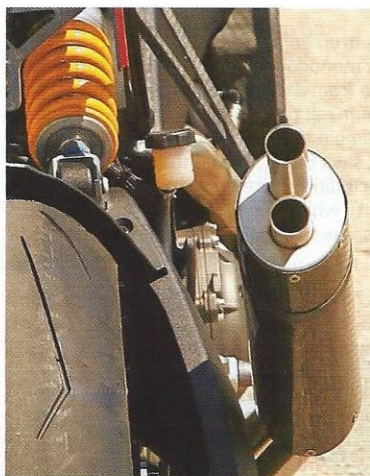
on best haviour. Nice - the Terminator got house-trained.

However, I have to say I found the EBR to be grossly overgeared, to the point that I could lap Blackhawk - which at 1.95 miles in length, with seven turns, is no go-kart track - entirely in second gear, and pretty fast, at that. Out on the street, this was even more of an issue, especially riding through towns where bottom gear and heaps of clutch slip were de rigueur most of the time - it needs at least an extra 3T on the rear sprocket. It's hard to figure out why this should be, if not for passing the EPA's ride-by noise test.

Unlike some others, I'm a fan of the Buell's single large diameter front rim disc, which is surely an element in the bike's sweet steering thanks to its reduced gyroscopic mass compared



The Buell EBR1190R's motor is derived from the Rotax designed 1125R's.



One can. Two outlets.

Specification

EBR 1190RS

Engine: Water-cooled dohc 72° V-twin dry sump four-stroke with four valves per cylinder and chain drive to inlet camshaft, thence gear drive to exhaust

Dimensions: 106 x 67.5mm

Capacity: 1191cc

Output: 174bhp at 9750rpm (claimed)

Torque: 97lb-ft at 9400rpm (claimed)

Compression ratio: 13.6:1

Fuel/ignition system: Electronic fuel injection and engine management system, with IDS Technology ECU and 2 x 61mm Dell'Orto throttle bodies, each with twin injectors

Transmission: Six-speed with chain final drive

Clutch: Multiplate Suter oil-bath slipper clutch with hydraulic operation

Chassis: Cast and pressed-up aluminium monocoque containing 17.1 litres of fuel

Suspension: (F) fully adjustable 43mm Öhlins inverted telescopic fork/120mm travel. (R) cast aluminium swingarm pivoting in engine crankcases, with fully adjustable Öhlins TTX36 cantilever monoshock/130mm travel

Head angle/trail: 22° / 86mm

Wheelbase: 1407mm

Weight: 176kg with oil/water, no fuel (Carbon Edition, as tested)

Weight distribution: 53/47% static

Brakes: (F) 1 x 386 mm GSK ventilated floating perimeter steel disc with Nissin eight-piston caliper. (R) 1 x 220mm GSK steel disc with Hayes monobloc two-piston caliper

Wheels/tyres: (F) 120/70ZR-17 Pirelli Diablo Supercorsa SP on 3.50in. EBR cast magnesium wheel. (R) 190/55ZR x 17 Pirelli Diablo Supercorsa SP on 6in EBR cast magnesium wheel

Seat height: 775mm

Manufacturer: Erik Buell Racing, East Troy, Wisconsin, USA
www.erikbuellracing.com

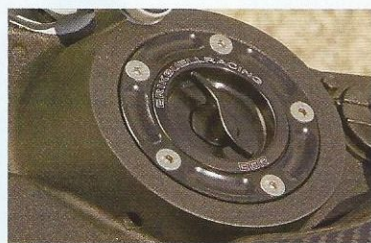


The 1190RS's handling is sublime.

with a twin-disc setup. The EBR's braking was really excellent, too, even if I needed to squeeze pretty hard to make the eight-piston Nissin caliper grip the rim brake firmly. But in doing so I didn't experience any of the brake fade or pulsing of the brake lever that some riders have claimed to experience on Buells with the single rim disc. I believe this brake is an intrinsic element in the EBR's stellar handling, and offers no significant disadvantages to offset that.

With a 15-20bhp power deficiency against the best of the Japanese fours, the EBR may lack top end performance and not accelerate as well, it's also smaller and slimmer so it's much more agile in terms of handling, thanks especially to the more radical chassis geometry, with a 22° rake and just 86mm of trail.

It steers brilliantly, flicking quickly and intuitively from side to side in turns thanks to the ultra-effective mass centralisation which the whole architecture of the bike incorporates. It also has a calculated, confidence-inspiring turn-in, with good feedback via the Öhlins fork from the front



Even the fuel cap is sexy.

Pirelli, and well chosen suspension settings that help it ride bumps well.

Plus, in spite of the wayout geometry numbers, it didn't ever feel as if it wanted to fold the front end if I tried trailbraking deep into an apex as the EBR is eager to let you do, and there's not a trace of understeer once you switch the power on exiting a turn. In fact, it's noticeable how closely you can hug the kerb in corners on the 1190RS, because it's so agile and tight-steering. There are times when it certainly doesn't feel like a meaty 170bhp twin-cylinder Superbike, more like something half that capacity in the way it steers.

With no anti-spin control, no anti-wheelie control, no launch control etc. this is a bike which the rider's in charge of, not the ECU. Even if the WSBK 1190RR has an electronic rider aids package installed, that rider involvement will surely filter down from racetrack to showroom.

With KTM so far reluctant to step up to the top level with its RC8R, Ducati hasn't had any twin-cylinder competition on the Superbike stage since the demise of the Aprilia RSV Mille a decade ago – but now here's the successor to that bike, albeit made in Wisconsin rather than Italy.

Erik Buell is back – not that he ever really went away – and is enjoying closure after the demise of the company bearing his name. "This is exactly the motorcycle that I've wanted to build for the past 20 years," he says. "We finally got it done!"

In detail: EBR 1100RS

125

the number of bikes EBR must build (not sell) before the start of the WSB season

1000

the number of bikes EBR must build by the end of the calendar year

\$18,995

the price tag for the basic version

\$39,995

the price tag for the limited edition 1190RS model (with race-spec Öhlins suspension and heaps of carbon fibre and magnesium)