

# BUELL<sup>®</sup> MOTORCYCLES 05



A Harley-Davidson Company.

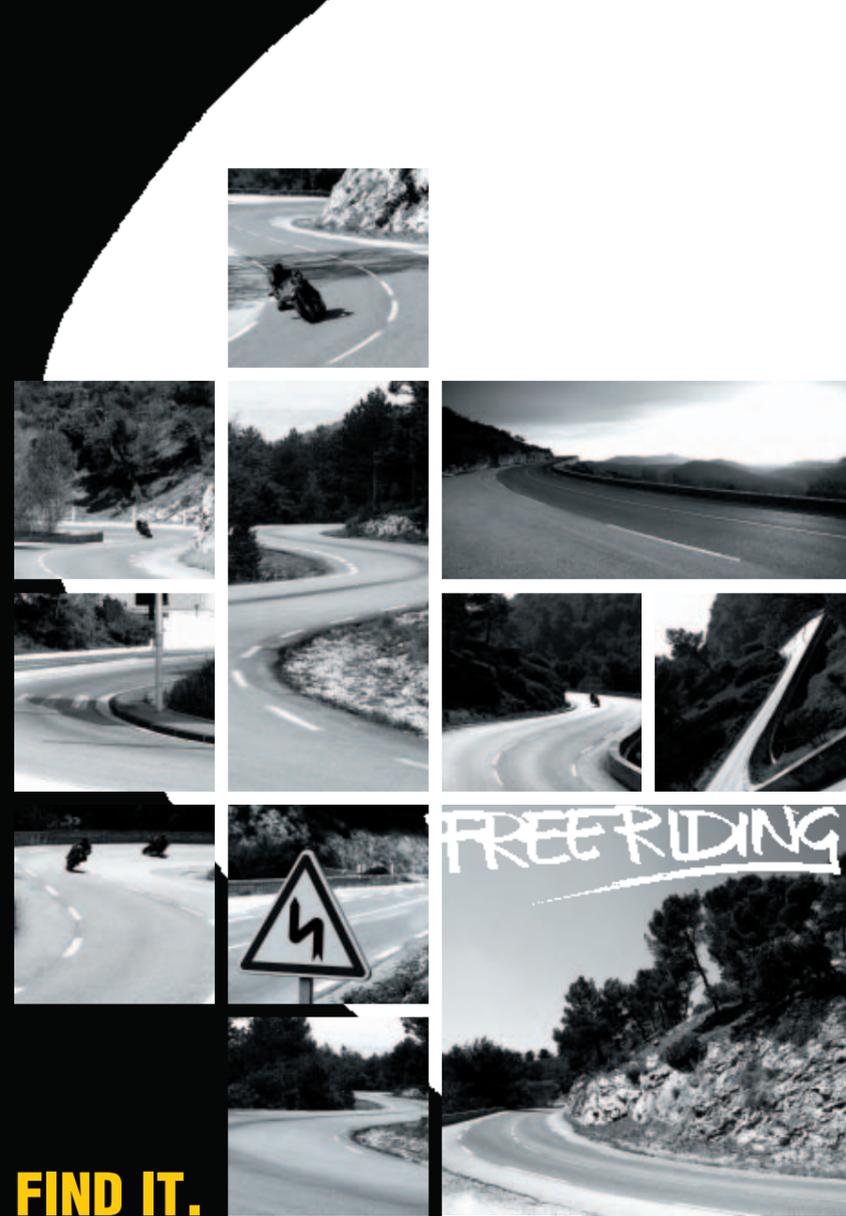


When you're on a Buell® you ride when you want, where you want and the way you want; as a unique individual on real roads, in real life. You ride because it frees you, because it fires you, makes you feel alive.

Just one look at the 2005 Buell model line-up will get that adrenalin kicking in because each and every machine has a purposeful brutality about it, a street-wise posture that says: "You want some?"

Sure you do...

**ADRENALIN IS FREE. YOU JUST HAVE TO FIND IT.**



### AN ENGINEER WITH PASSION

It's a word not usually used to describe engineers – passionate. Aren't they supposed to be clinical, logical, rational? How can they allow emotions like passion to get in the way of work? Meet Erik Buell, who is as passionate about motorcycles as it is possible for anyone to be. He's also a brilliant engineer and founder of the company that bears his name. Erik's been riding bikes since he was 12 years old and became so comprehensively hooked by them that he raced professionally and worked in motorcycle dealerships as a mechanic to pay for his night school classes.

### ON THE RACE TRACK

He was a quick rider too, reaching the very highest level of pro-racing in the US and setting the fastest newcomer's qualifying time for the 1978 Daytona 200. Not bad for a totally self-sponsored privateer. He's still pretty quick today. After gaining his engineering degree in 1979, Erik Buell went to work for Harley-Davidson as a chassis engineer, but in 1983 he left the company to realise a long-held dream of building his own race bike.

### THE FIRST BUELL® MOTORCYCLE

Erik first built the RW750, a pure racing GP two stroke, for the AMA Formula 1 series, but the race series was eliminated by Superbike. His technical success with the RW eventually led him into building a Harley-Davidson® powered sportbike for the street, the RR-1000 in 1985. He built a number of these without engines in 1986 for supply to racers having an HD® engine. But support came from the highest level and between 1987 and 1993, Harley-Davidson supplied Erik and his tiny team at Buell Motor Company, Inc. with the engines to build his sportbikes.

Early Buell models showcased Erik's engineering flair and incorporated remarkable innovations like the patented Uniplanar™ system, which minimises vibrations by rubber-mounting the engine in the chassis. Components that were considered the preserve of racing bikes found their way on to production bikes for the first time – upside-down forks, steel-braided hoses and six-piston brake calipers. Impressed by both Erik's unbridled passion and his visionary engineering, Harley-Davidson made an even bigger commitment in February 1993 and jointly founded the new Buell Motorcycle Company with Erik Buell.

### THE TORQUE MONSTERS

First-born of the partnership with Harley-Davidson was the now legendary Thunderbolt® S2 – an intoxicating blend of curvaceous beauty and novel engineering that created a simply breathtaking ride. The Thunderbolt was followed by the Lightning® S1, the original 'streetfighter' – minimal bodywork, race-bike components, a grunt-laden 1203 cc engine and one bad-ass attitude. It was named 'Hooligan Bike of the Year' by Cycle World magazine in the US. More recently, Buell has introduced bikes like the 984 cc Buell Firebolt™ XB9R, which simply created the Sportfighter class for itself, and the updated Lightning XB9S. Both store fuel in their frames and oil in their swingarms; both boast the shortest wheelbase this side of a GP racer; both are now also available with thundering 1203 cc motors.

Torque is what you really ride with and the long stroke, big bore, 45° V-twin engines have proved perfect for real world riding where torque is much more important than maximum horsepower.

### TEN OUT OF TEN

These first ten years of Buell have witnessed the development of a constant line of innovative, mould-breaking and visually provocative machines guided by a set of single-minded engineering principals.

Each bike and every single design feature has been perfectly developed with the insatiable passion that grasped Erik Buell the very first time he threw his leg over a motorcycle.



**“TORQUE IS LIKE MUSCLE, IT PUSHES THE POWER DOWN TO THE GROUND... NOW, THAT'S WHAT YOU REALLY RIDE WITH.”**



# IS IT JUST ONE THING THAT MAKES A BUELL® DIFFERENT? NO, IT'S THREE.

One of the most important things about Buell® motorcycles is that there's no great mystery to them. Erik Buell won't be compromised by the dogma of mass-production but has instead developed his own engineering principles, which he is happy to share.

They work on the basis that having fun on a motorcycle doesn't require the most powerful engine or the highest top speed. How you get there is much more important than when you get there and, on a Buell, there are plenty of grins to be had on the way.

But these are grins that are gained from simple yet innovative technology - an engineering principle that even has its own name. Erik Buell calls it the 'Trilogy of Tech' and, in fact, it's really quite straightforward.



1370mm

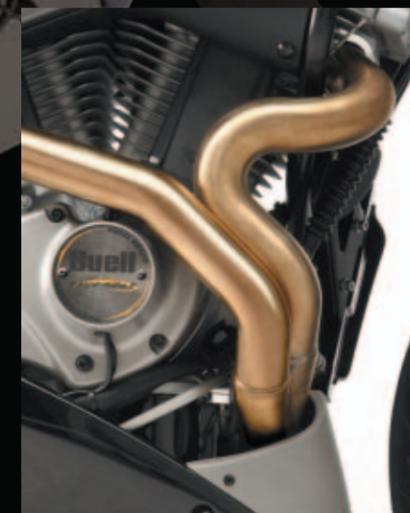
THE ART OF BALANCE



## MASS CENTRALISATION

This is exactly what it sounds like: concentrate as much of the bike's mass as close to the centre of the motorcycle as you can. Not just the engine, but things like the exhaust muffler or rear suspension components near the middle of the bike, too.

The more you can do this, the more you reduce the stress on the frame and get what's known in engineering circles as a 'lower polar moment of inertia'. To you and most of the rest of us that means much more responsive handling on the road.



## CHASSIS RIGIDITY



This may be slightly less evident but when you have a really rigid frame, like the massive aluminium ones found on Buell's XB models, you get much greater rider control. More of the rider's little movements and adjustments are translated into instructions to the bike.

When you combine this element of the 'Trilogy of Tech' with Buell's Uniplanar™ rubber engine mounting system, you allow the engine to participate in that enormous frame rigidity as well and filter out most of the not-so-good vibrations. That means a much more comfortable ride.

## LOW UNSPRUNG WEIGHT

At the risk of stating the obvious, the 'unsprung' parts of a bike are those that aren't supported by the suspension - in other words the wheels and brakes. These are the bits that are closest to the point of contact with the tarmac: the tyres.

If you can keep the weight of these elements down, the tyres can maintain a solid contact patch on the different types of road surface you find in everyday riding - vital for good control and feel.

The ZTL™ (Zero Torsional Load) disc brake found on Buell® XB motorcycles transfers braking forces directly to the wheel rim, instead of via the spokes. It means a much lighter front wheel and an unsprung weight saving of about 3 kg on a conventional twin-disc set-up.





# BUELL LIGHTNING XB9SX



If you like your city riding to be at the pace you want, no hold-ups, entirely for your own convenience, then meet the new Buell® Lightning® CityX XB9SX. Its 984 cc V-twin snarls at crawling traffic; with 64 ft. lbs. of torque and 83 hp straining to be let off the leash, to dart between slow-moving cars, nipping at their heels.

As an engineering package that combines real, usable low-down power with a rigid frame, centralised mass and low unsprung weight, the Lightning® CityX is a perfect example of Buell's technology at work.

And as a bike with real urban attitude it says... whatever the hell it wants.



LIGHTNING  
CITYX



The first ever use of "see through" styling on a Buell motorcycle makes the Lightning® CityX XB9SX the ultimate naked bike. The Hero Blue airbox cover and flyscreen are made of a new translucent plastic that gives the bike colour but also allows mechanical elements to be visible through the material. Why, because it's never been done before. And it's different. And because Buell can.

Like Buell can put deflectors on Supermotard style handlebars and a grille on the headlamps. Urban chic? Nah, this is urban rugged, and it's stylish with it.





Of course the Buell® Lightning® CityX XB9SX has the chassis technology that lets it turn instantly and aim straight for the head of the line at the stoplight. Twist in the power on green and the traffic and the city are behind you in a thrust-filled moment. Gun it or bring it back to a standstill, you want a Buell to turn heads - and so this new Lightning® CityX will.

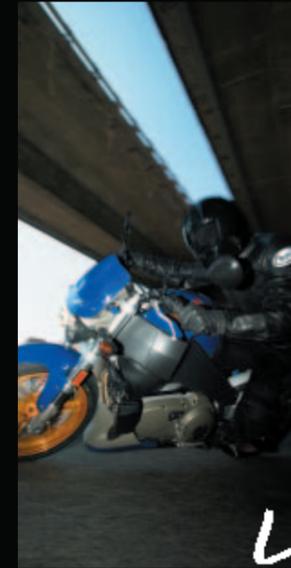
Of course, this bike has every ounce of the sound engineering pedigree that has been bred into every single Buell model over the last ten years - the family trait that sets Buell motorcycles apart from anything else on two wheels.

But if ever there was a truculent, streetwise teenager in the Buell family, the Lightning® CityX is it.





# BUELL LIGHTNING XB12S



LIGHTNING

When you've got a 1203 cc V-twin thumping out power and torque that tries to wrench your arms from their sockets, you've got a motor that's made for corners; for punching out of one and propelling you onto the next; for pasting a permanent smile on your face.





When the bark from that motor draws you under bridges and through tunnels, just so you can feel the sound that is hitting everyone else on the street with physical force.

When you've got a short wheelbase, perfect weight distribution and responsive suspension, you've got a chassis that'll whisk you precisely into, around and out of the corner faster than you can think.

Because you don't want to think, do you? No time. You want to experience, to thrill, to revel in the moment.

When you have low maintenance belt drive that works with a perfectly positioned rear shock to get the power to the ground quickly and efficiently; when you work brakes that stop you quickly, efficiently and with unbelievable stability; when you nudge wide, flat-tracker bars for real control and leverage.

And when you're riding the bike that invented the entire streetfighter genre – one that so strongly represents individuality and freedom that owners of other machines actually strip components off to try and replicate it, then, and only then, you'll know that you're riding a Buell® Lightning® XB12S.





# BUELL FIREBOLT™ XB12R

There's a road out there - it's quiet and it's smooth. It has a mind-blowing combination of fast sweepers, left-right flicks, barely noticeable kinks, a couple of hairpins and straights just long enough to hit top momentarily, before clicking back down the box and braking for the next.

At the end of this road is a stunning view, but no-one really sticks around to look at it for very long because they usually want to go back and do it all again.



BUELL  
FIREBOLT



The road was designed and built for Buell's Firebolt™ XB12R, because it's a road that is all about control.

Control through the perfect riding position that results from the Firebolt's clip-on handlebars and rearset pegs, together with sculpted areas for your knees in the frame and airbox cover.

Control from the Buell Firebolt's rigid frame and perfect weight distribution,

enhanced by upside-down Showa forks and Buell's patented ZTL™ (zero torsional load) brake system.

Control that launches you with a deep, growling resonance from corner to corner through the 100 hp and 81 ft-lbs. of torque from the bellowing 1203 cc V-twin engine.

The Buell Firebolt™ XB12R motorcycle - now control yourself.





# TAKE A FREE RIDE

Stunning pictures and evocative words are easy to put together - especially when the subject matter is the astonishing 2005 Buell® motorcycle line-up. But this brochure is nothing compared to the true-life look and feel of a real Buell.

And those looks and that feel are simply a representation of the ride of your life that's waiting to be demonstrated at your local Buell dealer. Go on; ask for a demo ride now. Be warned though: Buell motorcycles are highly addictive.



## SPECIFICATIONS

### BUELL® LIGHTNING® XB12S

**Engine:** Air / Oil / Fan cooled 4 stroke 45° V-Twin  
**Displacement:** 1203cc  
**Power\*:** 100 hp / 101.4 PS / 74.6 kW @ 6600 rpm  
**Torque\*:** 81 ft lbs / 109.7 Nm @ 6000 rpm  
**Exhaust:** Buell Interactive Exhaust System  
**Chassis:** Aluminium frame with Uniplanar™ Powertrain Vibration Isolation System

**Wheelbase:** 1320 mm / 52 in  
**Rake:** 21°  
**Trail:** 83 mm / 3.3 in  
**Front Suspension:** Fully adjustable Inverted Showa® Forks  
**Rear Suspension:** Fully adjustable Showa® shock absorber  
**Front Brake:** ZTL™ type 375mm stainless steel floating rotor, 6 piston caliper  
**Rear Brake:** 240 mm stainless steel rotor, single piston floating caliper

**Fuel Capacity:** Fuel in the frame, 14 litres / 3.7 gal  
**Dry weight:** 179 kg / 395 lbs  
**Length:** 1950 mm / 76.8 in  
**Width:** 755 mm / 29.7 in  
**Height:** 1075 mm / 42.3 in  
**Transmission:** 5 speed constant mesh  
**Final Drive:** Low maintenance belt drive  
**Tyres:** Front: Dunlop D208 FW 120 / 70 ZR17  
Rear: Dunlop D208 M 180 / 55 ZR17

**Colours:** Midnight Black, Racing Red, Thrust Blue  
Translucent Amber wheels

**Warranty:** 2 year, unlimited mileage warranty (Europe)  
1 year Buell Assistance (Europe)

### BUELL® LIGHTNING® CITYX XB9SX

**Engine:** Air / Oil / Fan cooled 4 stroke 45° V-Twin  
**Displacement:** 984cc  
**Power\*:** 83 hp / 84 PS / 62 kW @ 6600 rpm  
**Torque\*:** 64 ft lbs / 85.6 Nm @ 5600 rpm  
**Exhaust:** Free-breathing 2 into 1 collector  
**Chassis:** Aluminium frame with Uniplanar™ Powertrain Vibration Isolation System

**Wheelbase:** 1320 mm / 52 in  
**Rake:** 21°  
**Trail:** 83 mm / 3.3 in  
**Front Suspension:** Fully adjustable Inverted Showa® Forks  
**Rear Suspension:** Fully adjustable Showa® shock absorber  
**Front Brake:** ZTL™ type 375 mm stainless steel floating rotor, 6 piston caliper  
**Rear Brake:** 240 mm stainless steel rotor, single piston floating caliper

**Fuel Capacity:** Fuel in the frame, 14 litres / 3.7 gal  
**Dry weight:** 179 kg / 385 lbs  
**Length:** 1950 mm / 76.8 in  
**Width:** 820 mm / 32.3 in  
**Height:** 1075 mm / 42.3 in  
**Transmission:** 5 speed constant mesh  
**Final Drive:** Low maintenance belt drive  
**Tyres:** Front: Pirelli® Scorpion Sync 120 / 70 ZR17  
Rear: Pirelli® Scorpion Sync 180 / 55 ZR17

**Colours:** Hero Blue Translucent flyscreen and airbox cover  
Villain Black wheels

**Warranty:** 2 year, unlimited mileage warranty (Europe)  
1 year Buell Assistance (Europe)

### BUELL FIREBOLT™ XB12R

**Engine:** Air / Oil / Fan cooled 4 stroke 45° V-Twin  
**Displacement:** 1203cc  
**Power\*:** 100 hp / 101.4 PS / 74.6 kW @ 6600 rpm  
**Torque\*:** 81 ft lbs / 109.7 Nm @ 6000 rpm  
**Exhaust:** Buell Interactive Exhaust System  
**Chassis:** Aluminium frame with Uniplanar™ Powertrain Vibration Isolation System

**Wheelbase:** 1320 mm / 52 in  
**Rake:** 21°  
**Trail:** 83 mm / 3.3 in  
**Front Suspension:** Fully adjustable Inverted Showa® Forks  
**Rear Suspension:** Fully adjustable Showa® shock absorber  
**Front Brake:** ZTL™ type 375mm stainless steel floating rotor, 6 piston caliper  
**Rear Brake:** 240 mm stainless steel rotor, single piston floating caliper

**Fuel Capacity:** Fuel in the frame, 14 litres / 3.7 gal  
**Dry weight:** 179 kg / 395 lbs  
**Length:** 1935 mm / 76.2 in  
**Width:** 715 mm / 28.2 in  
**Height:** 1100 mm / 43.3 in  
**Transmission:** 5 speed constant mesh  
**Final Drive:** Low maintenance belt drive  
**Tyres:** Front: Dunlop D208 FW 120 / 70 ZR17  
Rear: Dunlop D208 M 180 / 55 ZR17

**Colours:** Midnight Black, Racing Red, Thrust Blue  
Translucent Amber wheels

**Warranty:** 2 year, unlimited mileage warranty (Europe)  
1 year Buell Assistance (Europe)

For full specification on all models visit our website [www.buell.com](http://www.buell.com) \*(EU Standard EC95/1)

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