

Peace Dividend

Imagine if TE Lawrence – aka Lawrence of Arabia and the owner of seven Brough Superior vintage-era superbikes in his abbreviated lifetime – had actually conceived, designed and personally built his own radical sporting V-twins, rather than leaving George Brough to do it for him. And had earned the funds and the resources to do so as a direct result of a high-level blunder by British Army command, which saw him and his squad cast adrift in the Arabian Desert, stamped as ‘Missing in Action’...

Audette Velos V2

WORDS: Alan Cathcart PHOTOGRAPHY: Phil Hawkins

Instead of Lawrence, consider Georgia-born US Marine Corps veteran Tony Audette, 32, who joined up three days after graduating from high school, and instead of Arabia read Afghanistan – otherwise, the rest holds true. Audette served Uncle Sam as a medium and heavy machine gunner for five-and-a-half years from May 2009, latterly in an eight-man squad deployed to some of the most remote and inhospitable regions of Afghanistan, meaning he spent a long time out in the high desert.

Audette was among the Americans left behind in Afghanistan after the Obama administration began pulling US troops out in 2013, and unfortunately, he was part of the squad that became known as the Exiled Eight. “We got lost on our Company’s roster,” he says diplomatically, “so we spent several weeks on the front lines without any support, and had to fend for ourselves. It was tough.”

Those Marines faced hostile conditions including constant sandstorms and dwindling rations, forced to find their own food while facing insurgent fire and other

hazards, highlighted by one of the squad losing both legs after stepping on an IED. Audette and his sergeant were the last ones to leave this hell on earth when they were finally evacuated from their area of operations, having befriended many local civilians and learned some valuable lessons about life from them.

Perhaps surprisingly after that experience, seven members of the Exiled Eight volunteered to remain on active service – a privilege denied them under the Obama downsizing, which saw Audette and his comrades all placed on Reserve. “I didn’t know what to do,” he says. “I’d been a soldier all my adult life, and wasn’t prepared for so suddenly being told to sit on the sidelines. So as four of the eight guys that I was with all came from Connecticut, I figured I’d head there for some future companionship.”

Home ended up being an apartment in a semi-derelict former convent, which also served as a workshop for restoring the motorcycle he’d promised himself out in the wilds of Afghanistan, a 1975 Honda four. “I’ve always loved motorcycles,” he says. “I got my first



one when I was 14 and rebuilt it with my Dad – a 1972 Honda CL350 in that cute metallic green that’s actually still at my parents’ house in Georgia. So when I got back from Afghanistan I bought a CB750 and rebuilt it in my apartment, so it was always in the background that working on bikes was what I wanted to do.”

Training and a new trade

Using the Marine Corps payoff he’d earned in Afghanistan, Tony Audette decided to study for his B.Sc. in Mechanical Engineering at Central Connecticut State University, and having graduated with Honours, joined nearby helicopter manufacturer Sikorsky, having first worked his way through college via a job with Mossberg, a local manufacturer of military and police shotguns. “I worked in their model shop making prototypes, which taught me how to use CNC machines and manual Bridgeport mills and lathes,” he says. “The guys who worked there taught me so much.”

But while working at Sikorsky making titanium swashplates and spindles for Black Hawks, and then as the youngest lead on the CH-53E Super Stallion heavy lift helicopter, Audette became frustrated with

working there. “I liked that job because it was satisfyingly creative – I love making things with my hands. But Sikorsky was a very corporate environment, and there was a big, heavy union, so it was really tough to get a lot of work done – I kept being told to slow down.” Frustrated, he left after two years and having conceived a girder fork for his ride-to-work 2016 Indian Scout as a postgraduate Senior Project, early in 2017 he applied for a job with the only manufacturer in the USA still using such a front-end design, Alabama-based Confederate Motorcycles.

BELOW: The speedo gives an indication of the engine’s supplier



However, the company was then in the process of transitioning to all-electric Curtiss Motorcycles, where Audette became lead engineer on its first prototype E-bike, the Zeus, unveiled in May 2018 at California’s Quail Gathering. Later that year, however, Tony returned to Connecticut to do his own thing, and established Audette Motorcycles in March 2019 to manufacture his personal version of the ultimate all-American V-twin sportbike.

“Electric motorcycles are fun because you’re literally reinventing the wheel, so it’s satisfying from a purely creative aspect,” he explains. “But they have a very different soul and feeling to why I love motorcycles – like riding the back roads on Sunday mornings when everyone’s at church, and the cops are in the church parking lots.

“That’s the best time for me to go riding, because no one’s on the road, and I can just tear it up. I’d always wanted a motorcycle that was purpose-built for that, something that had monstrous power with handling to suit, so I decided to create the Velos. That’s Arrow in Greek, and it’s a bike I built for myself in the hopes there would be customers out there looking for the same thing!”



With the support of his girlfriend (now wife) Jackie, a doctor in orthopaedic therapy, Tony Audette laid out the foundations of the Velos in their rural Connecticut home built in 1759, before establishing his own well-equipped factory in Canton, CT. There, he's created the prototype Velos I rode late last year on Alabama's warm, dry back roads, as well as the first customer bikes he's sold so far at a \$125,000 tax-free price tag, to include a wide choice of colours, suspension and wheels.

More will surely follow once word gets out about this high-performance two-wheeled hotrod whose minimalist styling surely encapsulates Miguel Galluzzi's Monster mantra that a powercruiser should consist of nothing more than two wheels and an engine, tied together with metal.

Creating the Velos

To create the Velos, Audette has utilised the air-cooled 49° V-twin Indian Thunder Stroke 111 motor which powered the relaunch of the historic brand under Polaris ownership in 2013. Partly because of the helical gear-driven internal counterbalancer that reduces vibration, as well as exactly the kind of modern retro

American aesthetic he was looking for, courtesy of Indian's chief designer Greg Brew and his team. "We just wake it up a bit for the type and style of riding I like!" says Tony. "The platform is so well engineered that we can increase the torque by 46% and the horsepower by 58%, and know that the motor's reliability is unaffected."

This motor was then punched out from its original 1811cc displacement to a hefty 2,064cc in Velos mode, courtesy of a stroked crank and forged Wiseco pistons producing an 11:1 compression ratio (up from 9.5:1) mounted on Carrillo forged steel conrods. The result churns out a massive claimed 156lb-ft [211.50Nm] of torque at just 3150rpm, and peak power of 117bhp at 4850 rpm. The stock 2023 Indian Chief claims 108lb-ft...

The stock six-speed Indian transmission with gear primary drive has been retained, but is combined with a Rekluse centrifugal clutch, as found on certain MV Agusta models, which essentially prevents you stalling the engine. And despite the seriously enhanced performance of the Indian motor, the stock ECU and Vehicle Control Module also have been retained.

ABOVE: The clear cover on the air filter shows the intake's generous dimensions

BELOW LEFT: Close-fitting mudguard lends some classic style
BELOW: Right-hand-side drive chain to the fat BST carbon fibre wheel



Specification

AUDETTE VELOS V2

Price: \$125,000 USD

Engine: Modified Indian Thunder Stroke, air-cooled, semi-wet sump 49° internally balanced V-twin, three-cam, push-rod, OHV, 105.3mm bore, 118.6mm stroke, 2064cc (as tested, options available 1818cc, 1900cc, 2147cc)

Power: 117bhp (87.2kW) @ 4,850rpm (as tested)

Torque: 156ft-lb (211.5Nm) @ 3150rpm (as tested)

Frame: CNC machined aircraft grade aluminium, proprietary twin-spar, internally braced C-Channel

Wheelbase: 1613mm

Brakes: Dual 4-Piston Beringer Aerotec Calipers / 310mm Galfer Wave discs (F), 2-Piston Beringer Aerotec Caliper / 220mm Galfer Rotor (R)

Transmission: 6 gears, chain final drive

Suspension: Fully tuned, custom RaceTech G6 fork (F), CNC machined aircraft grade aluminum proprietary swingarm, fully adjustable RaceTech G3S Monoshock (R)

Wheels/tyres: 120/70 ZR17 Pirelli Diablo Rosso III on 3.5"X17" carbon fibre wheel (choice of BST or ROTOBOX wheels) (F), 180/55 ZR17 Pirelli Diablo Rosso III, 6"X17" carbon fibre wheel (R)

Seat height: 825mm

Fuel capacity: 15.1 litres

Weight: 207kg (wet)

Contact: www.audettebikes.com

The stock Thunder Stroke motor's three-cam pushrod valvegear format with parallel tubes and hydraulic lifters remains unchanged; ditto the diameters of the two overhead valves per cylinder. But Baisley Hi-Performance has completely reworked the cylinder heads, fitting new Kibblewhite forged stainless steel valves, now operated via all-new camshafts and pushrods.

"We're using what Kibblewhite calls its Black Diamond Coating, which is similar to the nickel boron coating used in the firearms industry." This claims to deliver greatly reduced friction and increased corrosion resistance that's superior to chrome and nickel plating.

Framing the beast

"The Velos geometry is a twin spar 'C-Channel' frame with internal bracing to aid in the structural integrity while reducing weight," says Tony Audette. "The actual geometry was derived from larger sport touring motorcycles like the Kawasaki Concours 1400 and the Yamaha FJR1300. A main focus was on reducing the unsprung mass and centralising the heavier components. The centre of gravity with the rider



on board is positioned at the top rear of the rear cylinder head, giving a weight distribution of 52% front/48% rear, fully fuelled.”

The chassis’ twin frame spars are CNC-machined from solid chunks of aerospace grade 6061-T6 aluminium, the lower member of which began life as a 185lb billet which got whittled down to just two pounds in weight. That’s an awful lot of swarf, yet all the chassis components including the swingarm, the 15-litre fuel tank, the electronic wing covers and footrests and levers were all created in this way, and even the mudguards and fuel tank side flaps were CNC-machined from billets of ABS polymer.

The Velos uses fully adjustable Race Tech suspension, with the custom 43mm G6 inverted fork set at a 26° rake with 109.5mm of trail, and a G3S cantilever monoshock at the rear. These are relatively conservative numbers by sportbike standards, as is the 1613mm wheelbase, but this isn’t a Euro-style racer with lights, rather an American powerbike brimming with attitude, as well as heaps of grunt.

Time to test

Time to find out for myself how successful those calculations were, and my first surprise was that what looked to be a way-high ultra-minimalist but well-padded throne for the Velos turned out not to be anything of the kind, but instead a more welcoming and comfortable seat for a 5’10” rider than it looks with the bike at rest. “I modelled it after a 1920s era tractor seat, which needed to be comfortable enough to spend the entire day aboard it,” explains Tony Audette. Moreover, the stepover is really narrow, so that the

Velos feels tight and manageable. The riding stance is fairly upright – you’re just slightly inclined forward as you reach to the ProTaper one-piece handlebar whose rubber grips are fat and meaty, ready to absorb any vibes that may end up coming through them to attack your hands. “I went through seven handlebars to get this one, because your touchpoints are so important,” says Tony Audette, whose physical therapist wife had a hand in deciding the optimum shape and height of the ’bar chosen, and will perform a similar service for each Audette Velos customer. That’s an unusual USP for any motorcycle...

Thumb the starter button, and the jumbo-sized Thunder Stroke motor proceeds to live up to its name – even more than in the Indian Chief it was designed to power – via the deep, resonant rolls of thunder that instantly emanate from the artistically-woven, ceramic-coated,

ABOVE LEFT: The PowerPlus is certainly a handsome motor
ABOVE: Check the details on the front of the fuel tank

stainless steel 2-1 exhaust created by Ryan Colligan at Toce Performance.

The Rekluse clutch has a strong but not unduly stiff lever action despite the massive torque it’s being asked to deliver to the rear Pirelli – but the single biggest disappointment of my day-long cruise along the Alabama back roads came when I tried to select bottom gear, and had to be pretty brutal with the gear lever to eventually do so successfully.

It turned out that I was the first person after Tony Audette himself to ride the bike, but Tony was well aware of the stiff gearshift problem, which he’s subsequently redressed. “I altered the shift lever’s leverage ratio from 1:1 to 6:1, and it is now smoother than the Indian Chief factory shifter – so no more sore toes from shifting gear!” he emailed me to report. Glad to have helped with R&D, Tony...

One benefit of all that torque – at just 1,700rpm the motor’s already





producing 130lb-ft of grunt, which it holds right up to the 5,400rpm redline – is that you rarely need to shift gear once on the move, making at least two of the Thunder Stroke's six gear ratios redundant – maybe three. So after finally engaging gear, the Velos thrust forward off the mark like a jet-propelled tractor, with reams of bottom end punch which invited power wheelies despite the Audette chassis geometry's best efforts to strangle these at birth.

It didn't take me long to realise that holding fourth gear almost anywhere away from a freeway is the hot tip, because that way you need only to wind open the throttle exiting a turn at almost any revs to be able to surf the mile-high waves of torque that are present whenever you choose to access them. This can be both an extremely easy and a very demanding bike to ride, entirely depending on your disposition, and how hard you want to lay down all that torque exiting a turn. The choice of Pirelli tyres is a wise one, since these warm up quickly and deliver such excellent grip from the very first, an important element on a bike like this which delivers such massive torque straight out of your garage.

Moreover, Tony Audette's choice of the 180/55 rear Pirelli is also a wise one, because unlike on so many American V-twin powercruisers he's



ABOVE: Neatly designed and arranged, the tail light and indicators are fitted into the subframe

opted for function over form when it comes to tyre choice. So instead of the 240-section rear hoop beloved as a design statement by so many powercruiser builders, his selection of an ultra-rational smaller-size tyre makes the 2064cc Velos a two-wheeled tractor that handles like a half-size 1200cc Euro-streetfighter.

After riding it, you'd never guess that this is Audette's first crack at building an ICE bike from the ground up, because it steers and stops impeccably well – he's got the steering geometry spot on, with the wide handlebar an element in discovering this, thanks to the good leverage it supplies in flicking the Velos from side to side through a series of twisty turns, and the reduced gyroscopic effect of the carbon wheels.

But above all it's the irresistible urge of that jumbo motor that's so

enticing, pulling away seamlessly from as low as 1500rpm as you ride the titanic waves of torque peaking at just 3150 revs – you can feel that 3000 to 3800rpm is the bike's happy zone. Shifting up at four grand as shown in the hard-to-read digital panel in the stock Indian instrument has you right back in the fat part of that titanic torque curve.

Tech for the torque?

At the time I rode it the Audette Velos had just a single Standard riding mode available out of the three in the Indian Chief's electronics package, since when for his first customer bike now delivered to its eager owner Tony has added in Tour, with a smoother throttle response at lower revs, and Sport, with an instant throttle response when needed, for a more aggressive power delivery and increased acceleration. I was already quite sufficiently impressed by the Standard option. Cruise control is also now included as stock.

Cliché it may be, but here goes anyway, for if ever a motorcycle deserved to be called a two-wheeled equivalent of the legendary Shelby Cobra 427 land sled, it's the Audette Velos – a 2023 motorcycle whose qualities are redolent of a bygone age. This minimalist motorcycle with muscle aplenty is one super desirable set of wheels.