Liberty Ace review

The Reverend Morgan began building cars 100 years ago - and the first fruits of his labours had only three wheels. More than 60 years have passed since the last three-wheeler left the factory in Malvern, but the tradition lives on. Andrew English - owner of a Triking three-wheeler - tried the cars of two men who continue to honour Morgan's pioneering spirit, the Liberty Ace from the US and the UK-built Blackjack Zero.

Photo: Andrew English

By Andrew English 7:01AM GMT 23 Feb 2009

Pete Larsen isn't the first person to consider mating Harley-Davidson's formidable range of V-twin engines with a three-wheeled chassis. Back in the day, when Erik Buell was in his first stint with the mighty Milwaukee motorcycle manufacturer, he visited Tony Divey at Triking in Norfolk with the aim of massaging a deal to put Harley's engine's in Triking's chassis. Divey declined the offer, preferring to stick with Moto Guzzi's tried-and-trusted V-twins, but suggested to Erik that he should think about putting the Harley engine into a sporting, European-style motorcycle frame... The rest, as they say, is history.

"That Moto Guzzi unit has a pretty good balance," says Larsen, owner of Seattle-based Liberty Motors and designer and builder of the Ace three-wheeler. "The Harley engine will eat transmissions, crack frames and destroy driveshafts."

It's a monster that trades revs for thumping torque and an exhaust note that sounds like a grand piano dropped down a lift shaft. I should know, because I've this delightful car through the amber-hued turns of the leaf-strewn coast road on Mercer Island, Lake Washington.

The Ace is modelled on Morgan's Aero three-wheelers from the 1930s and drew inspiration from Divey's Triking, but Larsen learned what not to do from previous Harley-engined projects such as the ill-starred Corbin Merlin, which flared briefly before the project collapsed and left investors and deposit holders wondering where their money went.

Larsen and his wife Patti don't have backers, They funded a run of six three-wheelers by using the owners' deposits and the proceeds of their thriving motorcycle sidecar business. This

artisanal engineer/designer, his book-keeping wife/muse and their dog Cinnamon work from a beautifully restored downtown Seattle workshop that has belonged to Larsen's family since 1925.

The Ace is based on a classic spaceframe of welded round-section steel tubes, 1.5 inches in diameter. At the front there's a Morgan-style, four-rail frame, which cradles the engine. It's traditional, but very strong. The engine is the classic 45-degree, V-twin Harley-Davidson, in twin-cam B-motor form with 1,450cc/72bhp or 1,690cc/98bhp. It's a clever engine, with its own internal flywheels and balance shafts, but for car builders it is horribly flawed because it has to be turned through 90 degrees from its usual longitudinal stance.

In a bike, the engine turns a primary-drive sprocket so the stubby end of the crank is not machined to take a conventional flywheel and it would be difficult and costly to get it to do so. Larsen asked us not to go into too much detail about his solution to the problem, for fear he will be ripped off by rivals, but I am allowed to report that his design separates the clutch and flywheel assembly from the engine. Most of the car is hand made, but the steering rack is from a Ford Mustang (with shorter track rods), the front wheels come from a Harley custom specialist and the rear is also from the Goldwing, albeit with a car tyre fitted.

Turn the engine and the silence is shattered by the Harley's lumpy "potato-potato' beat. The gearlever is rifle precise with short movements and the motorsport pedal box is equally exacting. You sit quite high in the Ace, with a view over the bonnet and down towards the stubby wheels. The brakes are strong, but the pedal is sharp and Pete aims to change the master cylinder bore to give a bit of free play on production cars. Engage first, lift the short-travel clutch and the Ace lifts its tail with the torque effect and the engine's fruity voice chimes in: dakka-dakka, crashbang, wallop. This is the absolute apogee of motoring. Stripped to the bone, not even a heater, with autumn's loamy scents in the nostrils and a thumping engine up front. There's no windscreen or roof, so you are exposed to the environment in a manner that isn't available to other road users. It's driving in its purest form.

The Ace doesn't feel as fast as it is until you realise you've rattled past all the other traffic on the Lake Washington bridge and are now rapidly closing on a marked police cruiser - it's good for 120mph-plus, says Larsen. Jinking out from behind a truck shows the steering to be light, absurdly direct, but with a gentleness that allows subtle changes of direction and lends confidence. In a flat, straight line, the potent brakes will lock the front wheels as they should.

Add a corner or a downhill slope and the rear wheel locks first, which requires an instant, accurate steering correction.

The Ace needs some fettling (and a handbrake), but Larsen's secret transmission works well. "It's a Walter Mitty thing," he says, "but how many of today's vehicles offer such a feeling?"

Virtually none - especially with such exclusivity. I loved it. In fact I loved Seattle, Larsen, his factory, his wife, even his dog. If you fancy one, the costs for an unpainted kit start at \$38,000 rising to \$48,000 plus for a completed car. You be driving one of the rarest vehicles on the planet and small children will wave at you. What's not to like?

Liberty Motors, 2310 Rainer Ave S, Seattle WA 98144, tel 001 206 568 6030 (www.cycle-car.com).

© Copyright of Telegraph Media Group Limited 2013