



The appliance of science

Collaboration brings sports car technology to carriage building at Bennington

Michael Mart is a man with a passion. Despite being 'officially' retired, he can't stop designing and working on the next new development at Bennington Carriages. In June, daughter Sue tested out the latest of his brainwaves on a new marathon carriage based on the Bennington Stealth. The prototype performed very well at its first competition at Sandringham and Sue came home with a win in the FEI CA12* advanced single class.

So what is so exciting about this new development? It's the collaboration with the Great British Sports Car Company, which brings the latest technologies in suspension and shock absorption from racing cars into carriages.

"It goes beyond the idea of just adding shock absorbers and independent suspension," explains Michael. "Richard Hall at GBS has been working with us for nearly a year to redesign the whole suspension system of the carriage to give a smoother ride, better agility and faster speed."

"The purpose of racing suspension is to create long, soft travel at speed," says Richard. "When you are racing around a track or, in the case of rallying, across rough uneven terrain the driver doesn't want to be bouncing about in his seat. He needs a smooth ride so he can concentrate on driving the vehicle. It also means the energy of the vehicle is going forwards not up and down which is much more efficient."

Independent suspension

"We redeveloped the racing car suspension concept for the carriage, which not only makes the ride smoother and less jarring it takes weight out of it too and that has to be better for the horse as well as the driver. This is a really interesting project to work on."

This new version of the Bennington Stealth has front and rear independent suspension so

shock waves created when driving over bumps don't transfer between the front and rear wheels. The new shock absorbers minimise the 'bounce' in each individual wheel.

"The performance of this new suspension is quite awesome," comments Sue. "It manages the tight technical turns with ease and with the rear-wheel steering I can take the turns even earlier. The carriage hugs the ground and drives smoothly. It's quiet and the pony found it easy to pull. He didn't tire at all on the marathon at Sandringham. It's a smoother ride for Wendy, my backstepper, too. There are more improvements on the way with the help of GBS that will make the performance of this carriage stand out from the crowd. As a driver, it's really exciting."

Fresh approach

The collaboration came about because of a chance conversation with a sales rep who happened to supply both companies and, after hearing Michael describe what was he trying to achieve, suggested he talk to GBS.

"The collaboration has been really valuable, not just in what we have developed so far but for the new ideas and fresh thinking that talking to people from a different industry brings," says Michael.

Formula 1 car designers and engineers are involved in aerospace and military development to take advantage of that fresh thinking and awareness of the latest advances in technology. So why not carriage driving too? The horse-drawn carriage was the forerunner of the motor car, so it makes sense to bring the technology full circle and draw on the best of motor vehicle technology to improve the performance of the carriage.

"I've got all sorts of ideas," says Michael. "I wanted to do something radical to advance the sport and this is just the starting point. I might have retired from the day to day running of the business but I don't think I'll ever retire from thinking up new ideas and designs."

The new carriage will be available to order later this year, ready for next season. In the meantime the prototype vehicle is available to test drive.

- For more information on this and other carriages in the Bennington range tel: 01400 281280 or see www.bennington.co.uk/carriages

Above: Sue and Wendy Mart with the new carriage. Inset: Sue gets a spin round Cadwell Park. Below: Michael Mart and Richard Hall

