SUHNER®



The buzz money canno’’’’’t buy

WHEEL NUT …James Walker in action. At a slightly slower pace he’s competing in this year’s International Classic Grand Prix series, devoted to sidecar machines manufactured between 1965 and 1984 and at the Schleiz circuit in Germany clocked the fastest time through the speed trap, in or around 96mph on his 1971 WEC Suzuki.

BRITISH Superbikes attracts the best riders, brilliant technical brains, some big name sponsorship. Then there are the mechanics, like James Walker. At 46, he’s at the top of the tree. Riders tell him what their bike is doing and he’ll inevitably make it perform better.

BDK Race Engineering just outside Norwich was started in 1987 by James who raced competitively for 10 years on an annual budget of £4,000, about a tenth of the amount of cash available to better financed rivals, before turning his passion for motor bikes into a successful business.

LWA 80 enables me to get into places that I wouldn’t normally be able to get to – in a controlled fashion

“I’d got to the point where I needed sponsorship. I was racing a bike 10 years old against brand new machines and had to decide to spend £15,000 to £20,000 on a new bike, or carry on with the £500 machine that I bought and developed. From that moment on it became a sport that I competed in just for the fun of it.”

But because he’d done well on the track with his 400cc Yamaha racing machine – the lap record of 1:15.1 he set at Snetterton in 1994 averaging 93.2 mph still stands – he was being asked by other riders to make their bikes go faster.

“Races are won and lost in a workshop,” adds James whose bikes have earned a reputation for their astonishingly quick pace down long straights – a fact that helped South African Hudson Kennaugh end the British Supersport Championship last year as runner-up.

Many street performance and racing engines in James’ machine shop at Ashwellthorpe Industrial Estate go through a precision port and polishing process that reduces the restriction in the engine’s intake and exhaust chambers.

“Reduce that restriction and you let more air into the cylinders. If you have more air, you can add more fuel. The result is increased horsepower,” says James.

“That’s what we spend a lot of time doing. It’s all down to the shape of the port, which is critical to reducing friction and my satisfaction is doing a better job than anybody else,” he adds.

His tool of choice for two-stroke porting is the SUHNER LWA 80 pencil air grinder. “It doesn’t rely on speed because it possesses so much torque. Even dropping down to 10,000 rpm you can throttle back and smooth out casting bumps, ridges or other marks you may find.

“Because it has a slip tube when you rotate it you don’t change throttle position. So you have control. Once it’s set at a specific speed it will stay at that,” says James.



PORT OF CALL …James Walker working with the 75W LWA 80 pencil grinder that weighs in at just 27 grams, has a built-in silencer and side exhaust with 360° adjustment.

Porting is an art form mastered by years of experience at BDK Race Engineering. “Some of the motors we see that have already been modified are ruined by improper port and polish by other professional engine builders. This is caused by removing too much material, causing pressure leaks and poor heat displacement in the cylinder head and piston chamber,” he adds.

Porting an engine’s vital breathing parts is an important part of blueprinting a bike for maximum performance. When done properly it can easily produce 10% more power

He turned to the SUHNER grinder for porting the V6 two-stroke two-litre engine that powered the world’s fastest Formula 1 boat. “That record has stood since 1996 and we broke it after an all night stint, building an engine that achieved 141.68 miles per hour average over a 2km run on Lake Windermere – and we went on to break the 2 litre class record at 139 mph with the same motor.”

SUHNER(UK) LTD, Unit 1, Pool Road Business Centre, Nuneaton CV10 9AQ - telephone 024 7638 4333 - fax 024 7638 4777 - www.suhner.com