

NEWS: NEW BRITISH SUPERBIKE



■ READY TO GO: The TAG Performoto 900 in the workshop

WORLD EXCLUSIVE



■ DESIGN GURU: TAG creator Tryphonos at work

BIKE STARTED LIFE AS UNIVERSITY PROJECT

THE TAG Performoto 900 is the brain-child of engineer Michael Tryphonos.

It began life when he had to build a hub-centre steering system as part of a university project.

And after seven years of testing and perfecting his design, the bike is ready to be put into production.

He has built several running prototypes and tried out a range of steering angles to find the best set-ups for road and track use.

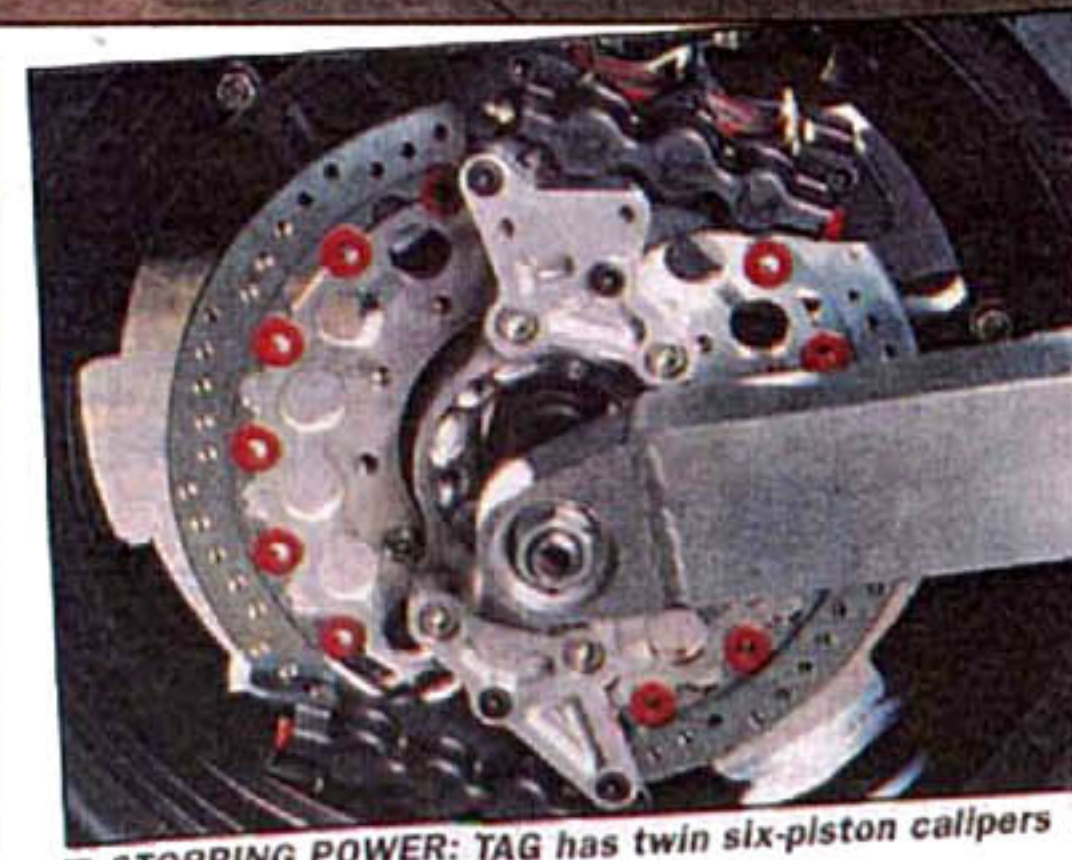
The tests even involved steering head

angles as sharp as 12 degrees – Yamaha's R1 has a 24-degree angle.

He claims the bike is very stable in road trim and says there's no need for a steering damper.

The steering head angle is adjustable depending on riding conditions. It can move from 18 degrees for track work to 20 degrees for ordinary riding.

The styling has been modelled on Italian superbikes such as Ducatis and Bimotas to give the TAG a modern and sexy look.



■ STOPPING POWER: TAG has twin six-piston callipers

TAG TEAM TAKES ON ALLCOMERS

BY PETER WILSON
PICTURES BY
HOWARD BOYLAN

No-holds-barred British superbike has high-tech design and outlandish looks

BRITISH boffins have built a super-light superbike to take on the best in the world.

The exclusive £18,000 TAG Performoto 900 will hit the road in six weeks.

It will weigh in at just 164kg (380lb). That's a massive 13kg (28.6lb) lighter than Yamaha's standard-setting R1 sports rocket.

And it matches the Japanese bike's 139.5cm (54.9in) wheelbase.

Bikers will be able to see it at next month's London Motorcycle Show.

It has high-tech hub-centre steering and comes with a choice of 125 and 155bhp Suzuki engines.

Its price puts it in the same bracket as bikes such as Ducati's £18,650 916SPS and Bimota's £15,600 YB11. Punters will get an ultra-exclusive hand-built machine for their cash.

TAG creator Michael Tryphonos believes his hub-centre steering system works better than the telescopic forks used on ordinary bikes.

He said: "Conventional motor cycle forks have been around for 80 years and they're just glorified bicycle parts."

The hub-centre system – which has been used on production bikes such as Yamaha's GTS1000 – splits suspension and steering forces.

It uses a swingarm to hold the front wheel and support the weight of the bike, while twin control arms on either side take care of the steering.

The front end is less likely to dive under heavy braking.

And Tryphonos claims his system offers excellent feedback, unlike many hub-centre front ends.

Tryphonos has tested the bike over thousands of miles on the road and race track in all conditions to prove its reliability.

A Suzuki RF900 lump in standard tune pumps out 125bhp in the base model TAG.

At 0.78bhp/kg it has the same power-to-weight ratio as Kawasaki's new ZX-9R.

The TAG will also be available with a tuned Suzuki GSX-R1100 engine which will make 155bhp, giving it an incredible power-to-weight ratio of 0.95bhp/kg.

That's more than enough

to beat the 0.84bhp/kg R1.

The engine hangs in an aluminium cradle frame which joins on to the giant double-sided front and rear swingarms.

The bike has twin six-piston PFM calipers biting on a single disc at the front and a lightweight Brembo race caliper at the rear.

Tryphonos claims the set-up gives the TAG massive stopping power.

The single disc at the front saves weight and cuts gyroscopic forces at the wheel, making the bike easier to steer at high speed.

It has top-of-the-range Penske shocks and the front and rear suspension are both fully adjustable for pre-load and damping.

With the front and rear suspension fully compressed it can still hit an amazing 55 degree lean angle without touching down. That's the same angle reached by the R1.

The bike has been designed to be as narrow as possible at 42cm (16.5in) across at the widest point.

The front wheel, fuel tank and all body panels are made from lightweight carbon fibre, as are the clocks.

North London-based Performoto has produced the chassis and most parts in-house.

Performoto has been building race motors and chassis parts for road race bikes for years and is well respected in racing circles.

There are also plans for a super-sporty SP version with a carbon rear sub frame.

Plans are also in the pipeline for an adjustable rear swingarm pivot which will make the chassis more adjustable for track use.

Bikes will be made to order and will take around two months to complete. Details: 0181-880-3420.

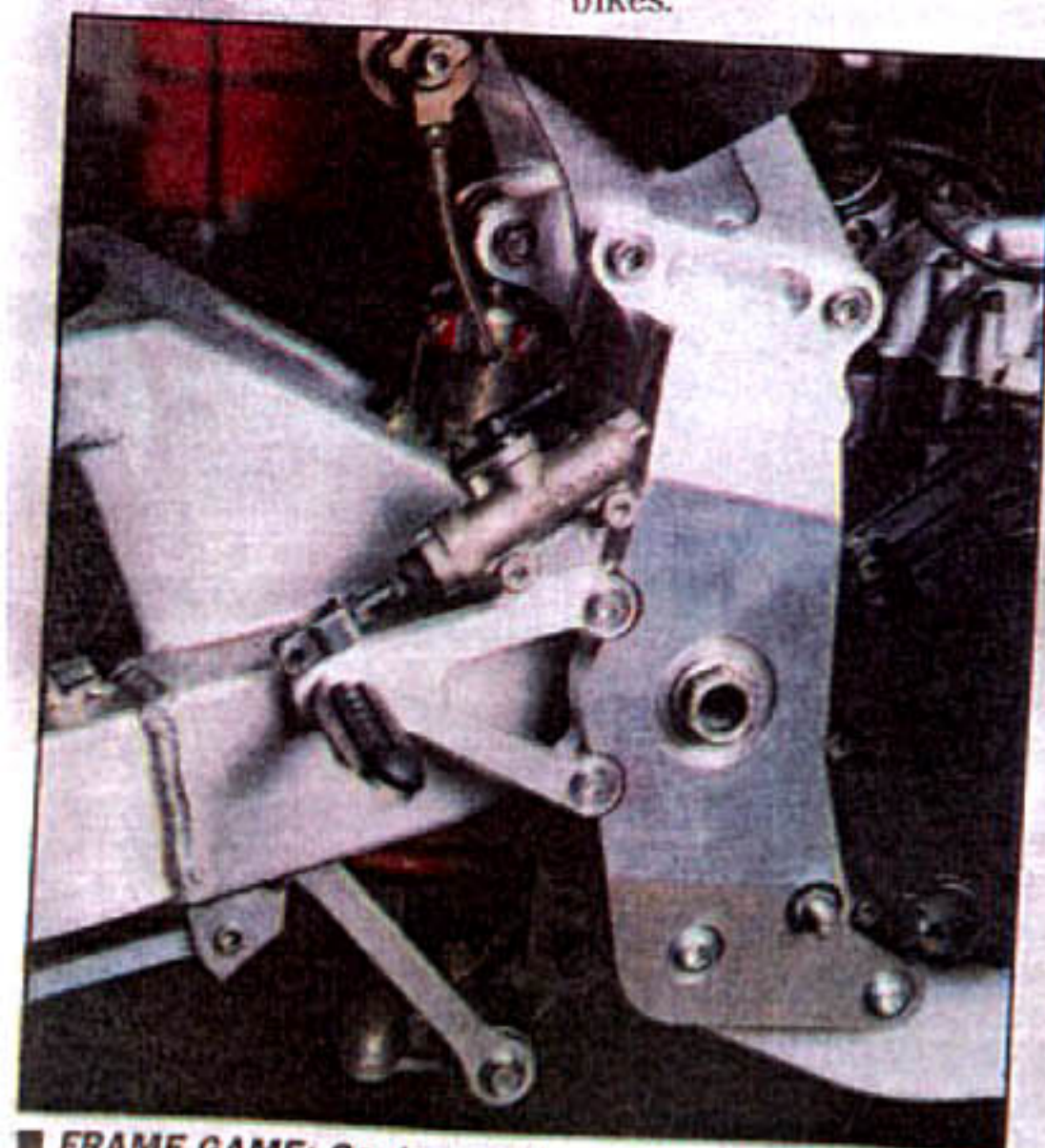
MCN will be the first to road test it later in the Spring.

You can see the TAG Performoto at the London Bike Show at the London Arena on April 4-5. Tickets cost £7 for adults and £4 for children and OAPs. Details: 0171-538-1212.

See next week's MCN for the first test of the ultra-exclusive British-built ASP superbike which goes head-to-head with Honda's exotic RC45 road rocket.



■ HUB-CENTRE: Steering and suspension are separated



■ FRAME GAME: Centre section of the TAG is extra-rigid



■ TT DEBUT: Harris in action

BRIT BIKE'S GOT RACE PEDIGREE

AN early prototype of the TAG superbike was raced at the Isle of Man TT in 1995.

The bike was ridden by Sean Harris in the Senior race and finished a very creditable 11th.

Harris said the brakes were excellent and the bike was totally stripped at the end to see how it

stood up to the gruelling course.

Designer Michael Tryphonos said: "There was no sign of wear at all on any of the parts."

He hopes to put enough bikes into production for the bike to be entered into the MCN British superbike series in the future.