

Tucson BT550 SuperLeggera:  
powered by Aprilia 550cc V-twin



## French 550cc racer 'to beat 1098R on track'

TINY French firm Tucson has created the new 97kg, 70bhp BT550 SuperLeggera sports bike in a bid to crush Ducati's 180bhp 1098R!

Tucson intends to prove the new machine's worth by competing head-to-head with bikes like the 1098R in the 2009 French Pro-Twin championship, where the machine's designers reckon it will be able to challenge for victory despite its massive power disadvantage.

Designer Jeff Robert said: "It's an idea we had some time ago: to develop a very light V-twin, perhaps the lightest ever made. That's why we chose the Aprilia engine, as it's the lightest V-twin engine there is. The idea was a very small, very

**'Our bike should be faster than the big twins'**

JEFF ROBERT, DESIGNER

light bike, like Honda's V-twin 500cc GP bikes."

He says the bike will lose out on the straights, but its corner speed should be so high that, over a race distance (particularly on twisty tracks) it will have an advantage even over the fastest big-capacity twins.

Robert said: "If you look at the performance of a 125cc GP bike and a big twin, the 125 has a worse power-to-weight ratio when both bikes have a rider on board, but it will be faster on track. Our bike will have the corner speed of a 125 and have a better power-to-weight ratio, so it should be faster than the big twins it will compete against."

"We are looking to save weight everywhere. The wheels and tyres are from a 125 and the front axle is made from metal just 1.5mm thick - the thread is glued to it, as welding would have destroyed such thin metal.



Wheels and tyres are from a 125cc machine, to save weight



Fork-mounting system has two separate steering shaft bolts

The forks are Paiolis from a 125 GP bike, and weigh just 5.3kg, while the whole frame weighs only 3.5kg."

The chassis design features an innovative system for mounting the forks, with two separate steering shaft bolts - one for the top and one for the bottom yoke. That means the two yokes can be further apart without adding weight, giving a stiffer overall structure. It also leaves a gap where there would normally be the steering pivot of the headstock, so the bike's air intake can run straight through between the top and bottom yokes.

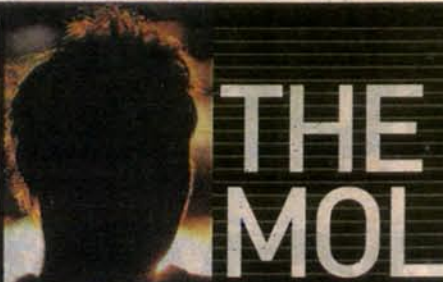
Although the prototype is being developed purely for use on track, Tucson hopes to persuade road riders the design makes sense, too.

Robert said: "It will depend on what people are willing to spend. They are prepared to pay a lot for a big twin, but expect a smaller-capacity bike to be cheaper."

Aprilia dropped plans to use the 550cc V-twin to power a sports bike because the engine, derived from the SXV enduro bike, needs too much servicing to be used on a road bike. But its research is helping the development of the Tucson bike.

Robert said: "Aprilia have provided a special engine with different camshafts and gear ratios, plus a slipper clutch. They have told me they researched this sort of motorcycle."

The price of the road-going BT550 will be dictated by its final specification.



## THE MOL

### New bike rumours from MCN's man in the know

#### TRIUMPH 675 'FAZER' ON THE CARDS?

ONE of the chaps I work with saw something rather odd while commuting in to work the other day. He saw a small Fazer-type machine coming in the opposite direction that appeared to be wrapped in tape and disguising material. Obviously it could be just a badly-repaired Fazer, but as it was heading in the direction of the Triumph factory it pricked my interest a little.

My first thought was the Tiger 675 that is known to be on the go, but my colleague is adamant it was a smaller, lower machine than your average trailie. The obvious obstacle is getting the bike built down to a competitive price (the Street Triple was delayed as it underwent repeated changes to make it profitable), but the 675 platform is entering its fourth year in production, so maybe Triumph have recovered enough costs to develop further derivative models.

#### LED HEADLIGHTS ON BIKES COMING SOON

LAST week Audi revealed that a new version of its R8 supercar will be the first car in the world with full LED headlights.

For the first time Light Emitting Diodes have been used to cover high/low beam functions as well as running lights and indicators. Audi claims it is years ahead of its car manufacturer competition, but I'm hearing that bikes aren't far from using such headlights.

Ducati promised to have

the technology rated into new shortly at the Streetlight takes a step in tion with LED lights), and concept also on its striking Audi are dull eco-barely-meas consumption as the new tech stuck with a headlamp of flexibility of bike design to stick with designs dic need to how those simple could be th advance in bil

#### CAGIVA BUENGL

YOU might have heard the rumours on the net that Cagiva is developing a new range of bikes. The Rotax engine Buell 1125R is rubbish. The started when came up with inary comput ed images of bike to promot but a few over sites gladly sw drawings as fa

The Helicon built solely for Erik Buell's tions, so it's u engine would Cagiva because Davidson (the both firms) is l tance its multi Cagiva isn't a p the MV Agust any case, as t and developm are flat out ge range back on i



Ducati Streetfighter towards LED