When Triumph re-emerged in 1991 they had to play safe. Hinckley Triumphs were tasked with proving British bikes weren't the unreliable oil-slicks of old. Styling took a back seat and engines were over-engineered for reliability. Compared with the exotic featherlight FireBlade, Triumph's Daytona was a frumpy old maid.

Then came the Daytona's evil twin... the first Speed Triple. Simply removing the plastic seemed to justify the weight and the solid engine. Lardy became butch at the drop of a fairing.

By 1997 it was a different story. Triumph's confidence had grown in line with its back catalogue of reliable bikes and that allowed them to have some fun with the new T509 Speed Triple.

Out went the heavy steel backbone frame and in came a beautiful twin-oval aluminium frame and single-sided swingarm developed in conjunction with frame specialists Harris that was shared with the T595 Daytona. As well as giving the T509 a distinctive homemade look it helped reduce the Triple's weight by 12kg.

Speed Triple: The engineering behind the attitude

Triumph was obsessed with making the Daytona T595 perform as well as Ducati's 916 and Honda's FireBlade, which benefited the Speed Triple. The new frame, fully adjustable Showa suspension and lightweight Brembo wheels gave the Speed Triple sportsbike performance in the streetbike market.

The newest incarnation, 2005's Speed Triple 1050, relies on the same basic formula. It keeps the twin-oval style frame, but a revised swingarm reduces the wheelbase by half an inch for faster steering.

Engine-wise the same motor has growled at the Speed Triple's heart for the last 14 years. Bore and stroke have increased and fuel injection has replaced carbs, but the latest 1050 lump is essentially the same one that powered the first Speed Triple. In 1999 it grew from 855cc to 955cc for the fuel-injected 955i version thanks to a rebore from 76mm to 79mm. The switch boosted power from 95bhp to 108bhp. The motor was 12kg lighter than the original, with magnesium clutch and cam covers, aluminium liners and a free-flowing head designed to Formula One coefficients by Lotus.

Triumph made the switch to 1050cc by lengthening the stroke from 65mm to 71.4mm (the bore stayed at 79mm). This long stroke gives its stonking torque. The inlet port was designed to create a high degree of tumble in the inlet charge at low speeds, which means the fuel is extremely well mixed in the air and the engine burns the fuel more completely and efficiently. The port design was also chosen for its ability to perfom well at higher engine speeds, which isn't always the case with a high-tumble port.

Triumph product manager Simon Warburton told RiDE: "The shape of the combustion chamber is vital in getting efficient combustion and to ensure consistency and accuracy we fully machine the combustion chamber and the throat of the inlet port. We believe we're the only manufacturer to go to these lengths: It makes the cylinder head more time-consuming to make, but we feel it's worth it for the results we get."

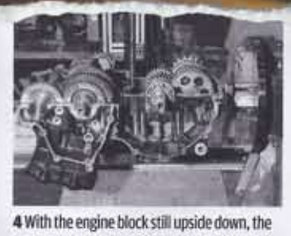
"The first Speed Triple was the Daytona's evil twin. Lardy became butch at the drop of a fairing"

HOW TO BUILD A SPEED TRIPLE

1 Crankcases are matched to make sure they're with the corresponding half for a perfect seal.

2 They're steam cleaned to remove traces of debris left from the machining process.

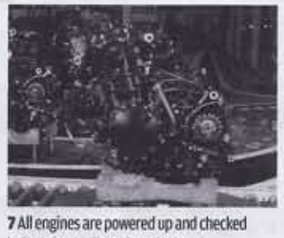
3 With the top half of the block upside down, pistons, con rods and crank are assembled.



4 With the engine block still upside down, the bottom end and gearbox are assembled.

5 The bottom half of the crankcase and gearbox cover is fitted to the main block.

6 With the cases together the engine is turned the right way up and clutch plates fitted.



7 All engines are powered up and checked before they're fitted into the frame.