

# T W E N T Y F I R S T C E N T U R Y T R I D E N T

This bike began life as a 1969 T150.

Now the only original part remaining is the tail light lens.

But Bill Gysin's astonishing bike still pleases purists

Words: Rupert Paul. Photography: Matthew Roberts

It's 4pm on Sunday at the Stafford Show, and everything is becoming a bit of a blur. Industrial quantities of chips and milky tea are working their artery-clogging magic. Even among the exhibitors torpor is setting in. Weighed down with ill-advised purchases, two Triumph-badged punters shuffle half-heartedly past a stand. Then one of them stops and turns. And grabs his mate's arm.

It's a Trident, but it's got a funny frame. Why do those sidepanels look so good? And Maxton suspension. Hang on, aren't those milled-from solid barrels? And what's the finish on that fantastic 3-into-1 exhaust? Twenty minutes later they're still there, poring over details, amazed at what they've discovered.

"It happens all the time," says Malcolm Shepherdson, who made this fantastic Trident's rolling chassis. "People you'd imagine would be diehard traditionalists are in rapture. They're the ones saying, 'If only Meriden had done it. If only Hinckley would.'"

The classic world is full of specials, but very few are unique re-interpretations of an original. Some people have said this is

the loveliest Trident road bike ever built. It's certainly one of the coolest.

Owner and co-creator Bill Gysin hatched the 21st century classic idea with his BSA-owning brother Jim in a pub some time in 2006. It was a couple of years before their third brother Robert's 50th, and they'd decided to get him a classic bike. "But anything half decent was stupid money. So we thought, why not bring a British bike up to date? Stick to the original look, but modify it to be as usable as possible." The brothers quickly decided to avoid Brembo brakes, upside down forks and modern rubber. Instead, over the next two years, they put in the hard yards in the pub, refining exactly what they wanted, and sourcing parts.

It was going to be an early 1960s Bonnie, simplified and re-engineered to behave, as much as possible, like a modern bike; preferably using British parts and craftsmanship. It was Jim who found chassis engineer Malcolm Shepherdson, boss of Metal Malarkey Engineering in Shropshire. A former aerospace toolmaker and shop foreman for Pat French (whose MRD company built almost 1000 frames)

Malcolm had also worked as a bike engineer in the USA and Germany.

"He knows all about Metisse frames and chassis geometry," says Bill. "And apart from being a lovely bloke, he's a genius. When we explained what we wanted he was absolutely up for it." Malcolm produced the rolling chassis in 2008, and Bill took it on from there. The next year was pretty much lost to engine trouble, but in 2010 Robert's Bonneville (which will be featured in a future issue of *Classic Bike*) was finished.

It worked so well that Bill decided he wanted his own one-off classic. A 1969 Trident T150, for example.

By now, Bill and Malcolm were collaborating closely. The Trident's frame, inspired by the Metisse cradles built by Pat French, was almost identical to the one on the Bonnie. Bronze welded in 2mm cold drawn steel, it holds the engine as high and far forward as possible, with 24.5 degrees of rake, 100mm of trail and a wheelbase of 1400mm – about what you'd find on a 1990s sportsbike. Weight distribution is 52/48 front/rear, against the original 40/60. But there's more to it than that.

Bill ponders just how far to go with the colour co-ordination



**"Some have said this is the loveliest Trident road bike ever built. It's certainly one of the coolest"**





**1** Plaque marks site of former tacho drive **2** Original side-entry plug no longer required **3** Widened Hinckley T-bird guard **4** Under-seat treats: Malarkey oil tank, mini battery with charge point, minimal wiring **5** ISR six-piston caliper gives power and feel. Lockwiring keeps it that way **6** Pressure-side oil feed to valvegear, milled-from-solid inspection cover, neat and tidy exhaust headers **7** Kickstart is a fusion of T150 and CB750. The 'Malarkey pin' on the right locks the whole shebang in the kicking position using a hidden spring **8** Polished and lightened tappets, with the golden glimmer of titanium collars **9** Flimsy 1969 number stays snug in recessed plate **10** Aftermarket holder, original lens. Mudguard is nine inches shorter than stock **11** Alternator wiring nips quietly across the gap into the frame tube **12** Rearset fofoests are pretty far back



**13** Keihin CR carbs fuel perfectly, even from low revs **14** Bill's through-frame wiring obsession comes from a dark past building street rod cars **15** Bill made the sidepanels in fibreglass, using the originals as a basis **16** P&M belt primary conversion with carbon cover. Even provoked by flapping trousers, the outboard clutch doesn't threaten an Isadora Duncan moment **17** P&M's engine build finish: as good as it gets **18** Original cases, milled-from-solid barrels **19** Cheshire-built Maxtons come with variable rebound damping **20** Comment is superfluous **21** Motogadget speedo pickup **22** Rizoma bar-end mirror is surprisingly good **23** Drop bars are one inch Velo, shortened. Spot the join if you can. Motogadget dash uses green LEDs whizzing around the arc above the speedo readout **24** Malarkey's chain adjusters. That's a Sportster hub, in case you're wondering







## WHAT'S WRONG WITH A STANDARD ONE?

The Trident T150 was the only multi-cylinder bike Meriden managed to build before being overwhelmed by Japanese competition – Honda's CB750 arrived soon after it was launched in 1968. Based on a 1930s 500 Triumph twin, the Trident engine has 14 separate castings, offering rich potential for leaks. But with expert assembly (which doesn't come cheap) it's a reliable, charismatic machine. It's also heavy, vibey, thirsty and has poor ground clearance. The original four-speed T150 is seen as the least glamorous of the Triumph/BSA triples (the others were the five-speed T150, the T160V update and the BSA-badged Rocket 3). Like many 1960s British bikes, the T150's styling is marred by add-on brackets and other gubbins. The T160s were made until 1976 and, arguably, later bikes looked better.



A light, flickable Trident? It'll never catch on



Taking shape. The rolling chassis back from Metal Malarkey

## HOW TO GET A FRAME BUILT

First, dream up a concept and take two years planning what you want, right down to the tiniest detail. For best results, start with the tyres and work upwards. It also helps to accumulate a band of doubters who will tell you what you're doing is ridiculous or unfeasible. "Jim and I wanted something that hadn't been done before. That was a real driving force," says Bill.

Next, gather parts and select a superb frame constructor. The brothers went for Malcolm Shepherdson at Metal Malarkey Engineering in Shropshire. "I can't overstate

Malcolm's input, how well he's interpreted our ideas. He has a totally can-do attitude, and is multi-talented."

Bill delivered a pile of bits to Malcolm and – after much chin-rubbing, sketching and discussion – a rolling chassis, tank and exhaust came back. "It really helps to deal with a customer who understands motorcycle engineering," Malcolm says.

Bill added final brackets and dry-built every detail: loom, tinware, coils. Once he was sure there was no more welding or fabricating, the paint went on.

At the planning stage Bill used Rule One from John Robinson's seminal book *Motorcycle Tuning: Chassis* – choose the best tyres for the purpose. "I didn't want a totally modern look, so we went for 18in wheels even though there's no really sticky rubber available; you've only got to look at one of the new Norton Commandos to realise that 17in isn't right." Bill chose a nimble 120/70 front and 160/60 rear, enough to handle an estimated 80bhp. For the chain to clear the fatter tyre, the engine needed offsetting 6mm to the left – a smidgen in balance terms. The frame is small, and tight round the motor, which is tilted forward by seven degrees. "You're not supposed to notice, just think it looks good," says Bill. "On the original bike the engine's bolt upright."

More cunning still is the routing, via the frame tubes, of the pressure-side oil feed to the valvegear, and the hand-built wiring loom. "P&M, who built the engine, come from racing – they think hidden wiring is a nuisance because it's hard to get to. It's more of a custom thing – I developed my obsession with uncluttered wiring when I was building street rod cars."

Bill's background is software and electronics, so the loom gave him a chance to do something crafty. Triumph's hefty original battery, horn, loom and ignition switch, plus the unsightly drives and cables for the tacho and speedo all headed west. The push-button ISR switchgear runs 30 milliamp current, boosted in a relay box under the battery to run the horn, tail light LEDs and German-made Moto Gadget dash. The only bulb left is the headlight. With a speedo pickup on the front wheel, and rpm supplied by the Pazon ignition, the dash does dip/main, warning lights, revs and mph. In a touch that is pure James Bond, the ignition is switched on via a proximity sensor behind the left sidepanel. But there's a catch: the sensor draws a small amount of current, so after a week in the shed the FS1E-sized battery goes flat. "It could have done with another Amp-hour or two," Bill concedes.

The styling came easily. "The 1969 look was a no-brainer," says Bill. "The trick was making it easier on the eye."

The original tank didn't work, so Malcolm slimmed down the back of an oil-in-frame Bonnie item, and welded in a

new base. The badges were ground down, reshaped to suit the new tank's curvature, then rechromed. The side panels, which fit the frame so neatly, are Bill's fibreglass one-offs, based on the originals. While all this was going on, the engine was in the hands of Trident experts P&M. The brief was a simple one: reliability, oil tightness and power. "There are very few people in the classic world who will actually do hot engines," Bill observes. "The cylinder head is an absolute work of art. If you want a Trident engine they don't come a great deal better than this. It was expensive, but I consider it something of a bargain."

That's my cue to wake up the ignition with the Moto Gadget fob, and switch the Keihins to choke. The rest is not so simple. I fold up the right footrest, unhinge the CB750/Trident kickstart and ensure the spring-loaded Malarkey pin is locking it in the kick position (if you don't the kickstart can swing round as it returns and knock the bike into gear. Then pull in the clutch and drop the kickstart to nine o'clock. Stiffen the sinew and kick hard but smoothly. With luck, every living thing within 80 yards will be staggered to hear





With 80bhp to transmit, the belt primary has a 25% harder time than it used to

## SPECIFICATION 1969/2011 GYSIN/MALARKEY TRIUMPH T150

### ENGINE/TRANSMISSION

Type .....	air-cooled, two-valve
.....	pushrod triple
Capacity .....	880cc
Bore x stroke .....	73 x 70mm
Compression ratio.....	10.5:1
Carburation.....	3 x 29mm Keihin CRs
Clutch.....	P&M dry conversion
Gearbox/final drive.....	5-speed
.....	P&M close ratio/chain

### CHASSIS

Frame .....	one-off bronze welded
.....	2mm CDS steel
Front suspension .....	Hinckley Thunderbird
.....	43mm, ABE stanchions,
.....	Maxton cartridges,
.....	adjustable rebound
Rear suspension .....	Maxton twin shocks,
.....	adjustable rebound
.....	and preload
Brakes front/rear .....	320mm ISR 6-piston
.....	210mm ISR 2-piston
Wheels .....	3.5 x 18in/5 x 18in
Tyres front/rear .....	Conti Road Attack
.....	120/70-18, 160/60-18

### DIMENSIONS

Kerb weight.....	381lb (173kg)
Wheelbase .....	50.8in (1400mm)
Seat height.....	29in (737mm)
Fuel capacity .....	3.5 gallons (16 litres)

### PERFORMANCE

Top speed.....	130mph
Peak power .....	80bhp @ 8200rpm
Fuel consumption.....	38mpg (est)

### VALUE

Cost .....	Bill remains coy
Value now .....	expensive

a rich, throaty, flat-edged, yowp as you blip experimentally and let the motor settle into a fast idle. The sound is nothing compared with what you're feeling: the thing fizzes and buzzes with life, and as the light, perfectly mannered clutch goes out there's a gravelly, undamped feel before the bike snaps forward with a sharp jerk of drive. That's light components and Megacycle cams for you.

One down, four up is the shift pattern, as slick as anything modern, and once rolling you can short-shift happily to third for 30mph limits, keeping the noise just below the level where it frightens young mothers with prams. The Keihins are race carbs, but they fuel as perfectly as their roadgoing cousins.

And then the countryside appears and, because it would be rude not to, you give it some stick. Immediately the sky cracks open, lime green LEDs flash across the dash and you are assailed by sound, fury, vibration and thrust in roughly that order. It's hard to overstate the drama of a P&M race motor's delivery in a bike that weighs 80lbs less than a standard T150 Trident. My modern CBR600F delivers 80bhp with

all the aggression of Alan Bennett reading *The Wind in the Willows*. This thing, with featherweight crank and clutch, and no driveline damper, is a raging devil. Even as the revs fall the tingles seem to persist in your muscles. Flat through the gears it'll stay with Bill's 280bhp chipped hatchback. By classic standards, it's shatteringly quick. By any standards, it's exciting.

And agile. Bill prefers a cafe racer riding position with drop bars and feet well back, but even so the bike flicks into low-speed corners and rattles through left/right direction changes like a modern supersports 600. Faster, bumpier bends bring out a little twitchiness. The superb Maxton cartridge fork conversion and made-in-Cheshire twin shocks, with springs chosen for Bill's slim six foot frame, feel perfect for a trackday. On the road they need a bit more suppleness to keep things comfortable and stable. Reducing the preload both ends would probably do the trick. With the bike still in shakedown, it's Bill's last job. Every other detail, all the things you take for granted on a production bike, are sorted. The front brake has exactly the right feel

and power. The chain pull geometry is ideal. The Rizoma bar-end mirror works beautifully and remains largely vibe free. The single cable throttle is fine even though the perfectly-balanced carbs are designed for a push-pull setup. The exhaust looks fabulous from every angle. The engine's oil tight, and nothing's chafing or falling off. The concept Bill dreamed up with his brother in the pub has worked spectacularly. And he's pleased. "The Trident is most definitely not a cheque book special," he says. "It's expensive, but there's an awful lot of our work in it. We think we've ended up with at least the sum of its parts, and probably a little bit more than that. If by the standards of the original the thing looks great, makes a nice noise, spins up sweetly, tips into corners well; if the heart of the bike is true to the original; if it feels like an extension of yourself, then that'll do."

### Contacts:

Metal Malarkey Engineering ([www.malarkeyengineering.co.uk](http://www.malarkeyengineering.co.uk), 01588 630288), P&M Motorcycles (02088 471711), Camcoat ([www.camcoat.u-net.com](http://www.camcoat.u-net.com), 01925 445688), Bob Swindells ([www.frsservices.co.uk](http://www.frsservices.co.uk)) – they made the 'Three Brothers' points cover