

Half dictator, half mass-murderer, Stan Stephens has ruled the two-stroke tuning roost for decades



When it comes to two stroke tuning there is only one name – Stan Stephens. A man with fully synthetic oil running through his veins...

MR TWO-STROKE

Don't take the picture from that angle, I look like a cross between Harold Shipman and Saddam Hussein." I've known Stan for a number of years and although photographer Phil looked a bit shocked by this comment it's all par for the course when you're in the company of the UK's, if not the world's, best two stroke tuner. Stan is direct, outspoken and genuinely entertaining to be around.

Having been involved in the tuning game for over 40 years, there is little that Stan hasn't seen, few he hasn't argued with, and even less who he hasn't tuned a motor for. In the late 1970s and 1980s two strokes were the bikes to race, and his name was on the side of the vast majority of the bikes winning club and British races. His is a reputation that has withstood the test of time and now, even though two strokes are becoming less and less common, it is still Stan that enthusiasts, racers and collectors are turning to when it comes to getting their smokers sorted. But it all had to start somewhere and as with most things in Stan's life it started with sheer bravado.

"I went to college after school but then I joined a motorbike shop when I was eighteen, a place called Tun Motorcycles in Tunbridge Wells. I didn't do an apprenticeship because I lied to them and told ▶

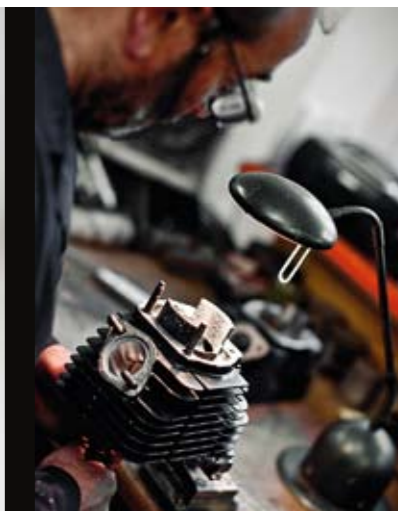
WORDS: JON URRY PICS: STEINHARDT

"I'll name that tune in one." Stan Stephens is a legend in tuning - just ask your Dad



Whatever your woes, Stan can always come up with a fix

I spent weeks testing two stroke motors on dynos before anyone else really thought about doing it



WHY ARE TWO STROKES SO GOOD?

"I once spent week trying to tune a CBX1000 and I couldn't get 10 per cent more power. Give me a two stroke and in three hours I can get you 50 per cent increase in power. You try charging the CBX owner for that work, you can't, but the two stroke man will happily pay as he has such an increase in power. That's why I did two strokes... it was a business decision really."



► them I was a trained mechanic. This dates me, but after the War a lot of dads didn't come home and the wives used to come along to the kids and say 'I've got an old motorbike, do you want it?' There was a waste ground we used to ride around so they would dump the bikes and from a very young age I was the kid who would stick a Triumph wheel in a Royal Enfield, whatever it would do to get them going so we could ride them. After a few weeks at Tun Motorcycles the foreman came over and said 'when I interviewed you, you said you were trained, you've never worked in a shop in your life, have you?' I said no and he



and he was told to work in the British race scene to learn two stroke tuning. I learnt everything about two strokes from him, we made our own exhausts, tuned engines and created our own race bikes. After I left I opened a dealership in Sevenoaks but then decided there was money to be made in racing, so I opened another shop that specialised in engine tuning, not selling bikes. This was in the 1970s and although I had been tuning for local racers it was nothing that serious, but it was the part I enjoyed. Then the air-cooled RDs came out and the two stroke tuning world exploded. I said to my wife Julie 'I'm going to change the direction of the business, I'm going to tune two stroke engines for racing'. She said to me 'but you don't know anything about tuning two stroke engines'. I said 'yes, but nor does anyone else!'"

When you talk to Stan you realise what a driven character he is. Stan isn't just competitive, he is verging on the obsessive when it comes to beating the competition and although he raced sidecars he treated this new business as though he was the one on the track. His bikes had to win, and he understood that if a bike with your engine in it wins a race, everyone else in that class will want your engine in their bike.

"I owe all my success to the racers I sponsored and it was through them winning that our business was built up. Soon the tuning business took off and we started employing more people to deal with the volume of orders, Bob Farnham was one of the first people I employed. We were tuning a humongous number of engines, there would be 28 engines ready and waiting for us every Monday morning. I remember doing an advert at the end of a season once, it showed the Marlboro series and the first ten in the 350, 250 and 500 were all on our bikes, I'd say 90 ►

STAN ISN'T JUST COMPETITIVE, HE IS VERGING ON THE OBSESSIVE

said 'I'll give you a test, there is a chest over there with three engines in it, all mixed up and unfinished, see how you get on with them. It took me two weeks but I rebuilt each one, everyday thinking I would get the sack. Eventually the foreman took me aside and said 'well done'. I said 'but it took me ages' and he said 'yeah, but none of those other bastards would have touched them'. I was in, and soon became his right hand man."

Chatting to Stan you soon realise that he was never cut out to be a mechanic, as he admits himself, it's engines that excite him and after a slump in the motorcycle market he left Tun Motorcycles and became a freelance engine builder, working for various dealers rebuilding customers' engines including Monty and Ward, who sponsored loads of racers. One of his projects for them was building a 'ready to race' club racer using a Suzuki T20 Supersix.

"This was where the whole two stroke thing started. I was working with a Swedish chap who was a two stroke development engineer sent over from Porsche. Not a lot of people know that Porsche was looking at developing a two stroke engine at that time



THAT SIDECAR PIC...

"This picture was taken at Lydden Hill in 1971. I'm the one flying through the air at the back of the chair, Tony Inch my passenger is the other lad in the air and the youngster eating the toffee apple in the background is Jimmy Webb, GP125 runner Danny's dad! We have destroyed the marshal's post and you can see all the marshals running like hell! Funnily enough Jimmy was one of the first lads I sponsored, that dates me!"

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Get the tune wrong and you'll find your smoker doing this

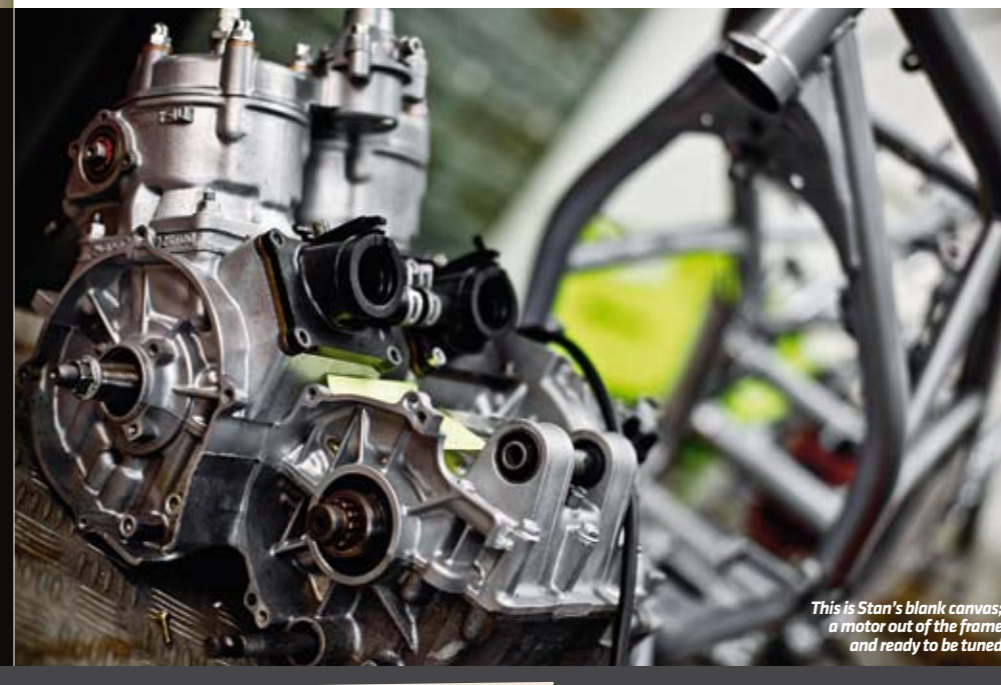


You only get out what you put in...



THE ANIMAL...

"I'm working on a 611cc two stroke twin using 350LC cases. A standard YPVS is a 64mm bore with 54mm stroke, I've taken it to a 78mm bore with a 64mm stroke, I reckon it should be good for 150bhp so I'm going to stick it in my sidecar. I could do it for a road bike if you want, it would easily fit in a 350..."



This is Stan's blank canvas; a motor out of the frame and ready to be tuned



THE RG500

"Again, up at the show Suzuki launched the RG500. One of our lads walked over and looked at the bike, asking all these questions in a loud voice 'how many you got coming in, when is the on sale date.' He had already sussed the bike, he looked inside the fairing and sure enough it had 398cc on the barrels, it was the Japanese 400 version, Suzuki hadn't even made the 500 yet, they were livid!"



Two wheels good, three wheels better. Four strokes? Forget 'em

THE MORE HOURS YOU PUT INTO DEVELOPMENT, THE MORE YOU LEARN

As with anything there isn't really any magic to Stan's tuning, it's down to dedication, hard work and a lot of practice, patience and experimentation. Trial and error, all driven by the fanatical need to win.

How do you find out what the minimum squish you can run on a head is? You keep skimming it until the piston starts to hit it. How do you find the optimum combustion point? You keep playing with the ignition until the detonation is perfect. The more hours you put into development, the more you learn. Stan's team put countless hours in and made sure everyone knew that it was their bikes doing the winning.

"I always made sure our bikes looked good, in our red and white colours and with our logo on them," remembers Stan. "I was looking at the records a few weeks back, I've sponsored over 160 different riders over the years, something I'm very proud of. I'm a racing enthusiast, I've always wanted to be a racer, or a race team manager or race mechanic."

Stan does give the impression of being a frustrated racer and at the track he treated every race his engines were in as a battle.

"Everything I've ever done I've done as a war. I don't now, but in the 1970s and 80s I had tunnel vision. My big competition was Terry Beckett, it was like North/South tribal warfare. The paddock was unbelievable, the rivalry between racers was so intense, but the funny thing was me and Terry used to watch the races together! But I always wanted to beat him. I treated tuning as racing. Watching my riders was just as exciting, I'd get indigestion from the adrenalin. But it was getting silly, the rivalry between us was so strong that we were losing money, blowing cash on engines just to beat each other. Eventually we spoke and came up with a pact, we said to each other 'let's just stick to what we know and try and make some money!' The tuning I do now on LCs is exactly the same as in the 1980s, the development kind of stopped at the point."

But times change and although Stan is known as a two stroke tuner his firm has dabbled in four stroke tuning.

"Two strokes were becoming less and less popular by the 1990s so I needed to develop a reputation for four stroke tuning. I employed one of the best four stroke tuners around

► per cent of the bikes out there were tuned by us at the time. At the first we were the only ones tuning but soon anyone with a file jumped on the bandwagon, but ours were the best. We were never the cheapest, I actually used to make sure we were the most expensive, but we did all the development, others copied our work."

Imitation, they say, is the sincerest form of flattery and once you put your engine out on the race scene it's there for all to inspect.

"I spent weeks testing two stroke motors on dynos before anyone else really thought about doing it, getting everything spot on. I did two weeks solid once testing reed valves. Different thicknesses, tapers, using backing plates, you name it, but our bikes were quick and it got us the work."

Every race was an advert, I was on it 24/7



THE RD350 YPVS

"We always had a really close relationship with Yamaha and the press had some spy shots of the 350 Power Valve before it was launched. Anyway, I got a 350LC top case, sprayed it black and stuck it on a couple of YZ125 barrels that had YPVS on them, just like the spy shot. I stuck it on my stand at the show with a sign saying 'latest 350 Power Valve development under way, available for this season.' Yamaha came over and said 'Stan, you know and we know you haven't got a YPVS, I won't say anything but I've got dealers going mad, how have you done that...!' Everyone came to me when the 350 YPVS came out to get theirs tuned because they thought I had been working on them for ages..."



CONTACT STAN

Stan can be contacted via www.stanstephens.com If you want to talk two stroke engine problems there is a £1.50 a minute Two Stroke helpline number which he will chat to you all day long on as well as contact details should you need an engine sorting.

engine and tell me to call them when it's done, racers used to stand there looking at their watches. Everyday I get a call saying 'you used to tune my engines in the 1980s, can you do exactly the same again.'

How much longer can the most knowledgeable two-stroke tuner go on? It's a question that is worrying some customers.

"I had a chap call me and I tuned a set of RD barrels for him. He calls up a few weeks later and asks if I can do another set. I asked him if he had damaged his, in which case I would redo them, but he said it was a new set of barrels. I asked why and eventually he said 'well Stan, I don't know how much longer you will be around...' I'm not gone yet!" ☐

► and looked at the classes we could race in. We needed to wave the flag at the highest level we could afford, so we built a supermono racer, which was then the big up and coming class. We won the TT with Jim Moodie and from that people just assumed we could tune four strokes, which we could."

But Stan has no love for these kind of engines, certainly not the passion he has for two strokes. "You have to know what you are doing with a two stroke, you don't with a four stroke. With a two stroke you are doing it yourself, with a four stroke you buy the pistons, buy the cam shafts and just take it apart and put it back together. There is less skill, it's just fitting. At the top level it's different, but at club and national there is little skill, you have to be a good mechanic but that's it. The tuner develops the cam shafts and the like, not the guy bolting them in, most aren't tuners, they just assemble engines."

Reputation is something Stan holds very precious and it is something he fiercely defends. Stories of Stan confronting people who he feels have bad mouthed him to the paddock were common in the 1980s and even though he has mellowed a bit today he still

believes in a strong reputation. "Every race was an advert and I was on it 24/7. I'd chase up every bad comment and find out why it was said. The reason I'm still here, and I'm very proud of this, is that I've never let anyone down or ripped anyone off. If there is an oil seal on the invoice, it is in the engine, I've never, ever, done anything dodgy and I never would. I've never lied and that's why I have my reputation. It's taken a long time to build it up but people realise they can trust me, that's what I'm more proud of more than anything."

But the two-stroke tuning industry has changed, Stan closed his tuning centre in the early 2000s to work from home as he nears retirement age. Racing has now taken a back seat and Stan has turned his attention to classic two stroke enthusiasts, a considerably easier group to work with.

"Books and the internet can only tell you so much, you have to know what you are doing given set parameters, stock carbs and stock cans and this is what I have inside my head and why people still come to me. It's experience and I'm now doing more road bikes than racers, mainly restorations. The best thing is there is no rush, they give me an