

ANY QUESTION

ANSWERED ✓

If we don't know the answer, we'll find the person who does

That stock can be a bit of a honker but a race one may mean fuelling tweaks



OWNING & RIDING

Q How do I turn my rough-running GSX-R into a smooth operator?

Since my 2009 GSX-R1000 had a race system fitted it hunts on idle and the throttle response is vile. I've seen stuff about Yosh boxes or an ECU 'flash'. Where do I start? James Kennedy, Liverpool

Answered by James Holland, JHS Racing
What a flash can do is disable the

top speed limiter and allow the engine to rev on further. It can also be used to change the opening rate of the secondary butterflies. To give an engine mid-range as well as peak power they might close slightly in the mid-range to give the engine more grunt. Trouble is, an ECU flash needs set-up time with fresh engine maps for

each gear at different rev points.

But there is no need to go that far initially as a Power Commander should give you what you need for road use. It's quick and easy to fit, and just as simple to remove when it's time to sell the bike and you want to put it back to standard trim. Suzuki's own Yosh Box is

separate from the ECU, plugging into the output module for Suzuki diagnostics, and does allow some fuel mapping adjustment, but only in big blocks. That was OK when it was 16-bit electrics from the mid-90s to 2003, but then it went 32-bit, and 64-bit is imminent, so it's not as refined as the Power Commander.

Q What kit turns a garage into a workshop?

I'm studying vehicle engineering at college and my family has just moved into a house with a proper workshop/garage – which is perfect for bikes. My college friends are starting to ask me to work on their machines. What bits of semi-pro mechanic kit should I look to get? John Humphreys, Shrewsbury

Answered by Chris Dabbs, MCN
If you are starting out on older bikes run on a young rider's budget, dirt and corrosion will be constant companions. So a decent pressure washer and a compressor for air-lines and tools are vital. An angle grinder will be useful as would TIG welding kit tyre levers and a chain breaker.



Kärcher K7 Premium Eco Pressure Washer £400

SIP Weldmate T113 Arc/TIG Welder £137

Motion Pro Pro tyre levers £42

Makita GA4530 720 angle grinder £41



Clutch-free downshifts are possible on your bike but won't be a cheap job

Auto-blipper envy after riding my mate's Panigale

Q There are three of us who are planning a trackday season on newly acquired bikes. I'm on a 2014 Ducati 1199, Paul has a 1299, and Steve is riding a 2013 R1. Paul bravely let us both have a go on his bike once he'd run it in, and we were really impressed by his auto-blip downshift function. I wondered if it would be possible to retro-fit the set-up to my bike and are there aftermarket kits out there for the R1?

Rupert McCarthy, email

Answered by Chris Dabbs, MCN
Even though you and Paul are both on Ducatis you can't just get a system which is the same as the one on his bike. The 1299 (and the 2015 1199R) both have a bi-directional shift sensor for up/down sensing and different wiring. And the later bikes have an inertial platform for lean angle-based braking, which means different software in the dash. So you are really looking at taking all of the 1299 electrical parts which then leaves you a big re-map headache.

So you and Paul have got to go the aftermarket route. Both your bikes are ride-by-wire models so that gives you access to the latest kit. The older, mechanical systems are quite limited, using air pressure in the manifold, which varies by revs.

On your Ducati and R1 the Blip Box (around £665 from Bike Sport Developments) is a simple plug-and-play with a 'second blip' that holds up the revs a little for better rev/gear matching.

Q Any tips for getting a stored Griso going?

I've had a neck injury so my 2008 Moto Guzzi Griso 1100 hasn't been started or moved for about two years. It's been garaged but I wasn't able to store it properly. Now my health has improved I want to get back out on my bike again. I know it would not be a good idea just to fire her up. I am handy with the spanners but I have never left a bike this long. Can you advise me what I need to do to get it running again.

Graham Fairless, email

Answered by John Coughlan, BIKERSWORLD

Drain the fuel out and add injector cleaner to the fresh fuel. Whip the plugs out and dribble a teaspoon of light lube into the combustion chambers, then turn the engine over by hand. There's a handy 24mm nut on the crank covered by a rubber cap that is ideal. Make sure the battery is charged and point a fan heater at the engine to get the engine oil warmed up and it should start on the button.



Solid Kawasaki ER-6f needs a careful touch to keep radiator clean

Q How do I clean a gunged-up radiator?

The radiator on my Kawasaki ER-6f is so clogged up with crud that I am concerned it isn't going to be up to the job when the weather warms up again. Is there a product that works on the aluminium, or any tips you've got for sprucing it up without wrecking the core as it looks delicate. Alex Cotterill, Oxford?

Answered by Chris Dabbs, MCN

You need to be careful because rads are delicate creatures. Caustic soda or even a weak acid solution will eat into the alloy. Even vigorous brush work with a detergent could flatten the fins. Try soaking the baked-on dirt with a sponge to soften it before using a garden hose set to 'spray' or 'mist' to rinse it out. If the dirt is totally dry a high-pressure airline can be effective.

TRAVEL & TOURING

Q How can I prep my bike for global adventure?

Answered by Andy Davidson, MCN
First thing is to make sure it works. It sounds obvious, but it's the obvious things that are often overlooked. Thoroughly check over your machine, make sure there are no rattles, no serious problems and everything is working as it should. If you're not confident, take it to a mechanic. Don't worry about replacing all the consumables before you leave as you can find these on the way. You'll want to spend time with your bike, going through your Haynes and owner's manual and learning as much as you can. Stripping your bike and putting it back together before you go will be a huge benefit when on the road as you'll know your machine inside out; and it also helps you

figure out what tools you need to take with you. Then you'll want to adventure proof it by fitting crash bars, protecting vulnerable areas, wrapping coolant pipes in old garden hose or thick rubber and cable ties. Fit a sump guard if you're heading off-road. Take a mini trip before you go for the big one and pay particular attention to your seat and reach to the bars. Tweak your seat by fitting a gel insert, strapping an Airhawk on or a sheepskin throwover. Make sure your bike is comfortable; in good working order and that you know it intimately.



Know your bike inside out before that big trip

TECH WATCH

Q Crossplane what? Pull the other one...

Yamaha have made much of saying the engine in their new MT-09 'new generation sports bike' shares a 'crossplane philosophy' with its growling R1 and M1. But is this just marketing hype? Well, yes and no. Strictly speaking, a triple can't be 'crossplane'; the name comes from the cross shape of the crank when viewed end-on. A triple with 120 degree crank spacing is more of a 'Y' shape than an 'X' shape. But what the triple does do is exploit the inertial torque cancellation effect as achieved by the crossplane in a four.

Answered by Chris Dabbs, MCN

The torque from the engine is the sum of inertial and combustion torque. The inertial force of the piston/rod assemblies is at its

greatest at the dead centre positions where the assembly stops then starts again.

Obviously, if all the pistons stop and start simultaneously, the inertial torque would be maximised. A triple (with 120 degree crank spacing) never has two or more pistons stopping/starting at the same time, which is the benefit of going to a crossplane arrangement in a four cylinder engine.

The benefits Yamaha claims about 'clean torque' is inherent to triples with 120 degree crank spacing – and they're as true of the Triumph Street Triple as they are of the MT-09 and new XSR900.

So how significant are the benefits of having low inertial torque? The real benefit of an engine which cancels out some or all of its inertial torque is in throttle control. If it isn't cancelled out, inertial torque increases with increasing rpm following a square law, which makes the engine difficult for the rider to

control as its effect is constantly varying with change in rpm. By cancelling or minimising its effect, the linear combustion torque – provided by the explosion of the fuel/air mixture – becomes much more dominant. The disadvantage is that you trade inertial torque cancellation for balance – which requires a balance shaft, adding cost, weight and friction (lost bhp) to counteract this.



Triples never have more than two pistons sitting at top dead centre

MCN LAW

Your legal questions

Q Van hit me and now driver says I'm to blame!

In December I was overtaking a long lane of stationary traffic as I rode along a long, straight 60mph road with broken white lines in the middle. With no warning a van pulled out of the queue and collided with me. I had no time to brake or swerve. I have a long road to recovery and cannot yet return to work. Now the van driver is saying the accident was my fault! I'm furious. I was only going 40-45mph. I have not seen the police report yet as apparently they are still investigating. I don't think I should be accepting any blame. What do you think?

Dave Richards, Worthing

You don't say (you may not know) what the van driver was doing but I suspect either a U-turn or using a side lane (if there was one) to turn around and escape the congestion.

'You should be looking to get 100% of your compensation'

Whichever, on the face of it, he is primarily to blame for this accident, if not completely to blame. The road was long and straight. It therefore follows that you would have been there to be seen for a significant period of time had the he looked in his mirrors or over his shoulder.

You don't say if he indicated and the police report may have witness evidence which helps with this point. What you want is a witness just behind him saying he didn't indicate and just pulled out. It would be helpful if others in the queue were aware of your presence. I do not think your speed was excessive. There is a major and supportive case relevant to your accident, a well-known case called Davis v Schrogin. Without damning witness evidence you should be looking to get 100% of your compensation.



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