

# ANY QUESTION

# ANSWERED

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

## Q What options do I have for HP2 forks?

The gold coating on the stanchions of my BMW HP2 Enduro is wearing off and the fork tubes have suffered too, chewing up the fork seals so that they are leaking. I'm reluctant to replace like-for-like just to have the problem reoccur, what other options are there?  
**Arthur Sinclair, email**

### A Answered by Chris Dabbs, MCN

The forks have a DLC (Diamond Like Carbon) coating, but it is very thin, hence the damage. The cheapest option is to dismantle the forks and send the tubes away to be recoated in a standard chrome finish. You could also get the stanchions sorted at the same time.

While they are stripped down, I'd get the fork internals rebuilt too. That would come to about £200 plus parts. Or you could look at replacement forks; a new set would be touching four figures, but uprated 48mm WP units as used across a lot of the KTM EXE range from 2003-06 would slot in with just a replacement lower triple clamp. You can pick up a used pair for about £350-£400.

KB Racing in Malvern (01684 568555) offer a kit for £510, which consists of a new lower triple clamp and a fitting kit for the brake caliper, with an adaptor sleeve and stepped spacer washer to go on the end of the BMW spindle so it works with KTM forks. They will also set them up for you.



## KIT CHOOSER

### Q Can you get a cover for a bike with a topbox fitted?

My Yamaha Fazer FZS1000 is used all year round and has to live outside in all weathers. I currently have an Oxford Stormex cover, in XL size; the protection has been excellent for three years, but the cover is now falling apart.

The problem I am finding with sourcing a replacement is that manufacturers do not appear to make covers suitable for a naked/sports tourer with a topbox fitted.

The only options seem to be for adventure bikes, but those covers are too big for my bike (as is the present XL Stormex).

**Malcolm Otter, Neath, South Wales**

### A Answered by Keith Roissetter, Infinity Motorcycles

You may have stumped me! I've spoken to a few suppliers and no-one seems to have a cover in their range with the quality and durability of the Stormex that will accommodate a topbox.

The Oxford Aquatex in large may work, but unlike the Stormex it doesn't breathe and you can't put it on a hot bike. Another option may be (and you'll need a friendly dealer who'll unpack one for you to try) the Oxford Protex Stretch. Unless you have a very thin topbox, the Held Cruiser Evo could work, but another XL Stormex with an extra bungee may be your best answer.



### Q Why are the engine revs 'hanging up' on my bike?

After many tens of thousands of miles, my 2001 Suzuki GSX750F has developed a starting issue in that it'll sometimes take a while to fire up and always needs choke. Then the revs stay high, even after I've taken the choke off, until it's warm. I know an old teapot isn't the most exciting of subjects, but any help bringing my trusty friend back to health will be greatly appreciated.  
**Lee Adams, email**

### A Answered by Steve Scully, GT Motorcycles

The fact that the revs are hanging up like that makes me think it's got an air leak, probably because the carb rubbers which connect them to the cylinders have become stiff and are allowing air to be sucked in, which is leaning out the mixture. I'd also check the plastic caps over the manifold stubs where vacuum gauges would normally go, as they can perish. I've also had them sucking air in through the fuel line vacuum valve.



### Q Why are my instrument lights pulsing?

When the lights and indicators are fired up on my Yamaha R1, the taillight and instrument lights dim and brighten in sequence with the indicators. The bike is also fitted with an aftermarket LED tail light.

**Tom Loughlin, email**

### A Answered by Chris Dabbs, MCN

A very low battery or an earthing fault are the usual suspects with this problem, so check all the bulb and bulb holder earths for corrosion. An aftermarket kit is another potential weak spot, so try plugging a stop/tail bulb into the bulb connectors upstream of the LED assembly. If that doesn't identify the fault, consider fitting a new relay and looking for an earth fault elsewhere in the loom.

## MCN LAW

Your legal questions

### Q How do I proceed with a pothole claim?

I came off when my front wheel hit a pothole and unfortunately had some nasty road rash and a broken wrist as a result. I have complained to the council but they deny responsibility. The pothole, to my mind, was an obvious danger. What do I need to do to get some compensation for my clothing and injury as I have lost wages also?  
**Roger Norris, Monmouthshire**

**A** The council has a duty under s.41 of the Highways Act 1980 to maintain roads at the public expense and to take reasonable steps to ensure that road users have safe passage along those roads. The council will have a statutory defence to your claim under s.58 of the Highways Act 1980 if they can establish that they have taken such care as was, in all

### 'The council's methods of road maintenance need to be established'

the circumstances, required to ensure that the part of the highway involved was not dangerous for traffic.

In practical terms, this relates to (i) whether the council has a reasonable method of inspecting roads and dealing with issues, and (ii) whether they followed that method in your case.

You would need to establish either (a) that the council's method of inspecting and maintaining roads was not reasonable; or (b) that, if their method is reasonable, they did not follow their own policy in this instance. In order to establish either of these, you may need to obtain expert evidence from a civil engineer. You should instruct a solicitor to investigate this claim for you.

### Andrew Campbell

Solicitor and author of the MCN Law column for the last five years

**Andrew Campbell, Bikelawyer.**  
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## EXPERT'S GUIDE TO...

# FUEL TYPES

The fascinating tale behind the magic golden juice that make us go faster



### THE EXPERT

**Freddie Turza** has been the Senior Technical Director of VP Racing Fuels' Research &

Development since 2008, working with the likes of GM, Ford, M-Sport and many others in the US and around the world. Before that, he ran his own engine shop for ten years and was a NASCAR engine builder for 12 years.

Petroleum has come a long way since the ancient Persians used it for lighting. A fossil fuel, petroleum is formed when large quantities of dead organisms, usually zooplankton and algae, are buried underneath sedimentary rock and subjected to both intense heat and pressure.

It's refined from crude oil using a technique called fractional distillation where the crude is separated into fractions differing in boiling point by means of distillation, typically using a fractionating column.

A litre of pump fuel produces 2.31kg of carbon dioxide when it's burnt, so governments around the world have introduced measures to reduce this, so that it is now a complex mixture of hydrocarbons, oxygenates and detergents like Methyl tertiary-butyl ether (MTBE), ethanol and alkylamines.



A tankful of ten million-year-old zooplankton and algae anyone?

## 3 THINGS YOU NEED TO KNOW



Know your fuel to make the most of it

### 1 Octane

'Five-star', 'Avgas', '100-octane', the British have been octane obsessed since higher octane fuels were created in 1940 to get more performance out of the two-stage supercharged Rolls-Royce Merlin engine fitted to Hurricanes and Spitfires.

The biggest question we're asked is 'how much octane does that fuel have?' People think it correlates to power, when octane is a rating of a fuel's ability to resist detonation and/or pre-

ignition. So it's not so much an indication of a fuel's ability to make power, but rather to make that power safely - i.e. without blowing your engine.

In fact, on a standard engine higher-octane fuel is counter-productive. When an engine is trying to burn a fuel with too high an octane rating, the burn rate is incorrect and some of the fuel won't be used. As well as a sluggish throttle response, this excess is usually left as a deposit that can foul plugs or get pushed out the exhaust.

### 2 Heat kills power

Cool fuel packs more punch with its energy molecules packed in tight, but heat rising from a hot engine will expand those molecules. For that reason, it's always good to go out with a full tank, especially on hot days, as more fuel in the tank keeps the fuel cooler longer and helps the bike run at its maximum potential.

450cc motocrossers get the fuel hotter than 250cc bikes due to the engine and tank being closer together. KTM's 250cc engines are very close to the tank and will heat the fuel like a Japanese



450. If it isn't done already, you can insulate fuel tanks from engine heat with reflective heat tape on the complete underside of the tank.

### 3 Oxygenates

Engines don't burn liquid fuel. The fuel needs to atomise or vapourise and mix with the air before it hits the combustion chamber.

Bike engines are already quite efficient compared to cars, but not every cylinder makes the same power in any multi-cylinder engine; oxygenates like ethanol get the fuel to vapourise in an orderly manner.

Oxygenates also enhance the burn process and pump fuels have wide parameters for oxygenates. A road bike ECU will compensate for this, but it's more critical for race bikes with engine maps tuned to fuel with certain values.

## Next week

### Lightweight wheels

