# Loud bikes and locked gates

Aftermarket pipes are a favourite of nearly all bike owners. But are they a must-have or a marketing concept? Nick Dole, owner of Teknik Motorsport, is all about performance. Glossy photos, big-budget marketing campaigns and loud opinions on internet forums cut no ice at Teknik. Nick's pay cheques are written on chequered flags and dyno charts. He shared a few thoughts on after-market pipes and adventure riding. Adventure riding means different things to different people. For many, it's an opportunity to get away from the routine of daily life, see new places, forge new friendships and explore. While we do all this, we leave a footprint on the places we ride. Not just tyres and the odd ploughing from a DR650 bashplate, but loud, echoing noise.

# Power play

Like it or not, most adventure bikes get into some sensitive areas, and the pulses from a single-cylinder bike do travel in gullies and bounce off valley walls. Sometimes

they'll echo on for kilometres. We then have a question: do we care if the local inhabitants hear us riding in their little piece of Utopia?

While local residents don't have the final say on what forest trails are left open, there's been heavy petitioning at times to keep bikes (and 4WDs) out of certain areas.

One of the first items on peoples' shopping list with a new bike is a pipe. Why? General perception is that stock units are heavy, ugly and cost power. Is that true or false?

### Performance gains and losses

The noisy-bike debate has been going on for as long as I can remember. It's not just the risk of pissing off locals, but have you ever followed a bike with a noisy pipe for a few hours? It's enough to make you want to pass them or drop back.

A few decades ago, when the two-stroke was king, Italian plastics giant Acerbis made a plastic muffler. I had one on my Six Day KTM 250. Coupled with the factory Slechin double-wall pipe it made great power and was very quiet. All the KTM Six Day bikes had that exhaust combo for the event. It was so quiet you often had to shout at people on single trail to get them to move over. Acerbis only made the mufflers for a few years. They weren't the biggest sellers, and the public preferred noisy mufflers like the FMF and Pro Circuit shorties.

Shaun Reed showed us all how much we were kidding ourselves at the 1994 A4DE. He dominated the entire event on a TTR250 with a stock muffler. From memory they were calling him "the whispering killer" or something like that.

So, what does an aftermarket pipe add in the horsepower department?

It depends entirely on the bike. Taking the



Above & below: Two Tiger XC800s. One has the stock pipe, one an aftermarket pipe. Is the stock pipe really that ugly?



DR650 as an example, about five horsepower is the gain. The bike isn't overly powerful to start with, so you really feel the difference. A WR450F is a different story. The stock muffler is actually very good, especially with the GYTR insert. Can you really ride a 450 to the point where you need more power? Most top enduro guys are looking for ways to tame a 450 down. The aftermarket pipes for fourstrokes are performance orientated, and the power is made mostly higher up in the RPM range. That's not great for long-distance work.

What about the weight, then?

True, some stock, steel mufflers are pretty heavy and there's often a few kilograms to be lost. I'm not sure of the relevance to this on an adventure bike where we tend to load them up with between 10kg and 30kg of gear, but everyone considers this another justification.

I will say this about heavy, ugly stock pipes: they are durable! I've seen and welded up a lot of aftermarket pipes that have cracked, fallen apart and generally self-destructed. When was the last time you saw a stock pipe crack and fail?

#### Muffler types

Seeing as exhaust swaps seem unavoidable we can break them down into three main types to help you work out what

Main: Those running loud pipes are costing all the sensible riders access to riding areas. Stock pipes are not only usually quieter than aftermarket pipes, they often work better in an adventure application.

# Exhausted



noisemaker you should be more inclined to spend your hard-earned on. The first is the mechanical-

baffle type.

Most stock pipes are mechanically baffled. The exhaust has to find its way through a labyrinth of plates, tubes and holes. While there may be some sound-absorbing material, it's not replaceable and lasts forever anyway. From all these tubes and plates comes weight, and there's usually a Left: A well-used Barrett muffler. It's several years old but still in great condition. They're very durable, and that's a big consideration if you're planning to cover big distances.

double-skin too, which keeps the outside of the muffler cooler and is a consideration for soft bags that push sidecovers on to the exhaust. The manufacturers do a lot of durability

testing, so while it's heavy, powersapping and ugly, at least it won't fall apart. This is something you should consider if you plan on being away from home for a few weeks or months.

Next up is the perforated-core style that needs packing.

A perforated ('perf') core is a steel tube with lots of holes in it surrounded by sound-absorbing material – usually fibreglass packing. All performance motocross bikes are perforated-core only. There's some mechanical baffling used at times, but it's fairly minimal. Most aftermarket pipes are perforated-core only, and that's why they're so damn loud. There are exceptions – like the FMF Q Core – that are a mix of mechanical and perforated.

While these pipes are loud stock, the real issue is when the packing, usually glass fibre, gets loose and starts blowing out the end. You can watch it happen. Rev a bike with a motocross-type muffler and watch the little shards of glass packing flying out. Once the packing gets loose things go downhill very quickly. Not only does it lose power, it also makes more noise and the core is unsupported, leading to cracking. If you have a typical FMF/ Yoshi/Pro Circuit muffler on a single you'll need to repack as soon as the bike shows any increase in volume at all. All manufacturers sell repack kits, and you can also purchase quiet end caps for most of these pipes. So you can have the lightweight look and power without annoying the guy riding behind you and buzzing koalas out of their trees.



# Perforated core with lifetime packing

There are not a lot of pipes in this next category. Staintune and Barrett are the two most prominent. They don't use a glass-fibre packing, they use stainless steel packing and it seems to last forever. Both have quiet inserts supplied with the pipes (not as optional extras). The Staintune gets the nod for durability too, with many units in service at well over 100,000km.

You can borrow a bit of technology to transfer into your glass-packed muffler by wrapping the perforated core in stainless-steel wool for a layer or two. This will protect the glass material from being blown out. Any industrial-supply company will be able to order the stainlesssteel wool in for you. The longstrand fibreglass packing is available free from yours truly. I hate unpacked mufflers so much I give the packing away free in some vain hope it's helping the collective masses. Right: Free muffler packing! Nick is so keen to keep bike noise levels acceptable that he makes quality packing available free to those smart enough to use it.

# Baffled

It should be noted multicylinder bikes don't have as many problems with packing blowing out of mufflers as singles. The pressure-wave pulsing of a single seems to dislodge the packing pretty quickly.

If you just cannot have a stock muffler, my suggestion is to get one that either needs no repacking (Barrett and Staintune for instance, and run the 'quiet' inserts), or run cans with plenty of surface area to absorb noise, like the twin mufflers on the Ténéré 660s. They do a good job even in perforated, glass-pack form.

Buying a motocross-inspired muffler for an adventure bike is just asking for the world to hate you and, in turn, the rest of us.



# So, what's too loud?

Do you need to wear earplugs? Do your mates hate following you? Do you get a headache from your own noise? Do people give you a dirty look when you ride past?

If that's you, do something about it before we alienate the general public even more.

If you just love the sound of a noisy motorcycle, go drag racing and stay the hell away from the rest of us.

