

CASE REVIEW

While the truck makers have been stealing the limelight with Euro 6 technology, tyre manufacturers have been busy, too. Ian Norwell gets into rubber, steel and chips

Until about 10 years ago, many fleet engineers saw tyres as a commodity or, worse, a necessary evil. But most now appreciate that tyres have a big impact on operating costs, not least because of their influence on fuel economy. Guy Heywood, commercial director of Michelin's truck and bus division, has watched the penny drop.

"It's not news that prices have increased," he says. "Tyres are up by 140% over the last 10 years, and fuel has doubled since 2008. Over that period, fleet managers have woken up to the value that's locked in a tyre." But he's also convinced that tyre management is no longer a job for generalists: a specialist needs to be in charge.

He concedes that smaller operators running their own workshops need to be familiar with their ppk (pence per kilometer) contract – the rubber

counterpart of R&M. However, for fleet managers who order their own tyres and get their workshops to fit and maintain them, you have to wonder about sustainability. Why? Because it's becoming more complex, and getting the potential value of tyres unlocked is probably beyond the scope of most general workshops.

Tyre manufacturers are both contributors to the complexity and the architects of solutions – most moving beyond ppk contracts to more all-encompassing styles of service. Michelin calls its Effifuel, and the deal starts with an account manager assessing your costs, agreeing a fuel economy saving, and paying you if it's not achieved. So, there's a fuel guarantee of sorts.

It's no secret that during the recession some hauliers moved to cheap tyres – not just cheaper, but cheap. Perversely, this has worked in favour of the

Retreading tyres

For a retread to exist, someone bought a new tyre and provided the case. The environmental conundrum is obvious: who is the greener? Retread production technology has got to the point where manufacturers can take more control and meet more demanding tolerances. So they will argue that, as a result, retreads offer the greenest route.

Look no further than the ContiLifeCycle plant in Hannover-Stöcken (*TE* Jan 14, page 31), where 180,000 retreads will be manufactured annually, after 4,000 tonnes of rubber has been recycled. That's a notoriously difficult task, post-vulcanisation, but the technology marches ahead.

Mainland Europe has historically not been a big user of retreads, but its operators are catching up with the UK, which has been wise to the benefits for years. Hauliers on this side of the Channel use two million heavy CV tyres a year, and nearly half (around 900,000) are retreads.

With performance pledges from most makers that match new tyres, and all the same support systems in place, the tide continues to turn.



Trials of RFID technology promise the now familiar truck telematics data for tyre management

premium brand manufacturers, because the tyre columns in operators' cost spreadsheets have since made unpleasant bedtime reading.

The origin of bargain basement rubber appears to be China. Defining and lifting standards has been the task of European tyre labelling legislation that arrived last November. It – and the arrival of heavier Euro 6 engines – spawned a re-think on tyre size, with, for example, Iveco going public on a switch to 315/70 R 22.5s for its new tractor units. In its case, the change followed trials of Michelin's fuel-saving 70-series rubber, compared with earlier 295/80 R 22.5 fitments traditionally favoured in the UK.

Tyre telematics

Apart from time savings, improved inventory control, theft reduction and foolproof tyre tracking, RFID (radio frequency identification) technology on truck and bus tyres now has a further advantage up its sleeve. Trials are well underway that promise the now familiar truck telematics data for tyre management.

Michelin and Continental are among several manufacturers developing RFID systems that look set to transform tyre husbandry.

Tony Stapleton, commercial fleet sales manager for Continental, confirms some parallel thinking. Like Michelin, Continental is moving to a 'total solutions' offering, which goes beyond tyres and typical ppk services. And its approach will be to examine live RFID data from tyres, the data being integrated with



the rest of the vehicle telematics.

"Fleet engineers understand the value of the data, but they don't want it from a separate source," explains Stapleton. And for the record,

his Conti pressure check (CPC) is capable of delivering live data on pressures and temperatures that will allow, for example, users to anticipate a tyre failure and prevent a blowout – so avoiding roadside repairs, delivery defaults and consequential costs, too. "We've spent years educating fleets: now we will be making tyres smarter and they will be talking to us," states Stapleton.

That scenario is entirely feasible: indeed operators such as Lafarge have been achieving similar ends through TPMS (tyre pressure monitoring systems) for some time – albeit only alerting the driver. Now, with data available centrally showing a tyre losing pressure and/or creeping above safe operating temperatures, fleet managers can call a truck in, or even have a service provider intercept it.

Stapleton confirms that Continental is in discussions with telematics providers to integrate live tyre performance data. "We can help fleet managers to control costs and predict failures. And, by adding this [data] to a telematics provider's system, we are allowing them to add value, too."

Everyone's a winner


If this symbiotic relationship bears fruit for truck operators, everyone will be a winner. While devices like the CPC will not help reduce blowouts caused by instantaneous events, they will give managers and technicians insights into tyres that may otherwise have limped on for days, before eventually failing.

And note: until now, it has been hard to separate unavoidable versus preventable tyre failures.

However, with the benefit of historical data, it could soon be only catastrophic events that kill tyres. Anything else and the data will reveal warnings ignored and someone, somewhere culpable.

Meanwhile, for those tyres that do fail, Bridgestone has released a safety video for roadside tyre operations, which draws on its experience delivering training courses to fleet customers and TruckPoint network partners.

Bridgestone's training and development manager Phil Thirsk says the video shows how to apply industry-standard best practice guidelines, when dealing with tyre-related breakdowns. "There have been numerous incidents when beacons are flashing on a service vehicle, the hazard lights are on, but an accident has still occurred on the hard shoulder of a motorway, or at the side of a road," he explains.

"This video sets out some simple guidelines which will help other road users clearly see that something is happening, which should minimise the risks involved in roadside breakdowns." 

Size doesn't matter

Simon Tattersall, head of national accounts at tyres giant ATS Euromaster, says that van fleets are now getting the tyre management message. "The tyre management methods of the heavy truck fleets are filtering down to vans. That's most obvious with truck fleet operators seeing rapid growth in their van operations," he says.

Tattersall confirms that the use of service providers to deliver tyre inspection, compliance management and replacement policies nationwide, is gathering pace in the 3.5-tonne arena. He also concurs with Michelin: "RFID will change the way we work. The ability to diagnose issues remotely will be a revolution."



This can only be good. Trying to catch trucks that are double-shifting to inspect and maintain tyres while they momentarily stand still is becoming increasingly difficult. As Continental's Tony Stapleton puts it: "When a truck is so rarely static, how do you get hold of it?" The answer: give them a voice, and listen to what tyres can tell you.