

LOOKING DEEP



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Monitoring tyre tread depth and condition should be easy, yet every day operators find themselves dealing with problems or delays caused by these issues. Lucy Radley speaks with two experts about the best ways to keep these issues under control, and what operators should be instructing their drivers

Gary Lane is fleet development manager at Prometeon (formerly Pirelli Industrial), a role which keeps him hands on visiting operators' yards. Eric Muller, meanwhile, is director of products and innovation (commercial tyres) at Goodyear over in Luxembourg. He has been with the company for around 30 years, but before that worked as both a truck and coach driver, so is also familiar with the sharp end of things.

First, some basics. "The tread depth is taken when vehicles go for service every three to eight weeks, and that record is a legal document," Gary Lane says. "In between, we expect the nominated dealer we've put in place to do at least monthly inspections, looking at both condition of the tyre and tread depth." These checks can be as regular as once a week on large, high mileage fleets, with a written or electronic report submitted each time.

Day to day, drivers should be

performing a basic visual check to pick up issues early. Failure to do this properly often will end up costing someone money; usually the operator.

"Funnily enough, I've just dealt with a worn tyre today, which unfortunately was found away from the customer's yard," Lane says. "Because we've had to call someone out to change it, there are costs involved, which will be passed on to the customer. It hasn't worn overnight," he points out. "The driver has missed his daily check."

Eric Muller agrees. "When you go to a vehicle, you absolutely first and



foremost, before you move it, look at the tyres and wheels," he says. "Tyres only wear around half to one millimetre a month, so if you drive your vehicle every day you won't see a difference. In that case you're mainly looking for damage, but if you don't know the vehicle, then you need to check tread depth as well. After all, the first person affected by the tread depth is the driver, because he or she has to think about safety."

When it comes to day-to-day pressure monitoring, both men favour the 'old school' approach. "When I was driving coaches, people were always astonished to see me get a hammer out and hammer the tyres, just to see if there was one which didn't sound like the others," Muller recalls. "We take pressure via the valve, but I wouldn't suggest drivers do that: if the valve is disturbed, they have no way of repairing it, where we have," Lane explains. "For me, all the driver needs is a bit of 4x2 wood and a hammer: if it 'dings', it's okay; if it 'dungs', it's flat."

“Normally I’ll take three tread readings on each tyre, checking the sidewall on the outside as I go”

Gary Lane



At around £700 to purchase, these probe-equipped gauges are more tool than a driver would need, but may be worth considering for workshop use.

Another option is to automate the process entirely, something that both experts have come across; in fact, Goodyear offers one (pictured). Muller reports: “Our system has plates to drive over, placed somewhere all the trucks pass. Every time they pass by, it measures the pressure and tread depth of the tyres.” As well as removing reliance on accurate driver checks, this gives a far more precise reading, so tyre changes can be planned for scheduled service times.

Adds Lane: “These systems are very good, but only if your vehicles are coming back regularly.” He advises against them unless it’s for a very large fleet: “It’s a hefty expenditure.”

Finally, we ask: how low should operators allow tread to go before changing or recutting their tyres?

“My advice would be between 2mm and 3mm - for re-groove, Prometeon’s recommendation is 4mm, and you would take 3mm out of the tyre to take it to 7mm,” Gary Lane says. “Never replace at 1mm, because the tread will inevitably be below that at some part of the tyre, and unable to disperse water.”

At Goodyear, Eric Muller is a little more conservative. He says: “Operators on the Continent would probably want to replace tyres at 4mm-5mm, because if they don’t see the vehicle before [the tyres] get really worn out, then they have a problem.” But as travel distances here are generally shorter, he qualifies his UK advice in terms of seasons. “If, for example, you are in July, you can pull them towards October and re-cut them, but if it is before the winter season, it would be advisable to change tyres a little earlier. In winter you need to keep more tread in reserve for safety,” he concludes. “Safety is always more important than economy.” 

One of the biggest challenges is checking inner tyres on drive axles, although where tractor units are concerned, the UK is at something of an advantage. Unlike on the Continent, British drivers regularly change trailers, giving them an opportunity to check their inner tyres while the unit is uncoupled. Failing that, drivers should raise the drive axle suspension to facilitate the removal of wing-tops for a proper check. “In theory, this should be every day, but we know nobody will do that. So in real life, do it whenever there is an adequate location,” advises Muller.

One thing in particular to look out for when inspecting inner drive tyres is wear to the inner shoulders, a common finding on high-mileage trucks. This is even more important when the trailers are not always in the best order, which is a problem familiar to any operator providing traction for unaccompanied ferry trailers, for example. “Very often with these trailers, the brakes will pull sideways, which exerts a force on the rear of the tractor,” cautions Muller. “That materialises on the inside of the tyres too, so it’s an important thing to check.”

Being realistic about the limits of inspections is necessary even for tyre

professionals. “When I’m checking fleets with 50-60 vehicles, all I can see is the 4 o’clock and 8 o’clock position, unless the air suspension on a tractor unit is right up,” Lane concedes. “Normally I’ll take three tread readings on each tyre, checking the sidewall on the outside as I go. Trailers on super singles are easier because you can see a lot more - around 80% of the tyre.” Bear in mind a full inspection should be done at PMI, so these interim checks are less rigorous.

KIT LIST

Turning to equipment, should drivers be issued with tyre depth gauges? “Some drivers do have them in the cab, but it’s more important to make sure the professionals inspect the tyres regularly, because we know what we’re looking for,” Lane reckons. If drivers are going to use tread depth gauges, digital ones are best as they’re more accurate, giving a reading to the nearest decimal point. “I use two, a digital gauge and a probe, linked by Bluetooth to my phone. The probe gives more accurate depths again, down to 0.05, and measures pressure at the same time.” (He uses the Bartec Auto ID Tap200 device; another is the Rema Tip Top Tread, pictured p14).