

a FREIGHT &
LOGISTICS supplement

 **Leading UK
Logistics**

TYRE MANAGEMENT

Summer 2019



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BRIDGESTONE



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BRIDGESTONE



ANDY MATHIAS
Marketing Communications
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Bridgestone is proud to sponsor this tyre supplement for *Freight & Logistics*, which provides fleets with an invaluable, up-to-the-minute insight into many of the burning issues facing the commercial motor industry.

The supplement allows us to communicate a number of groundbreaking new products and services, which will make a positive difference to your daily operations, including our premium new Ecopia product range, our digital Fleet-Pulse maintenance tool and

industry-leading retread tyre offering. We know that road safety and reducing downtime is of critical importance and you'll read more about the work we are doing to make a big difference in these areas of your business.

Bridgestone prides itself on leading the way in technologically innovative goods and services for the commercial motor industry, which can be seen across the business, and will be detailed in the following pages.

In addition to this, our 18-month tyre debris study has

enabled the industry to benefit from key findings, which is also brought to life in this tyre supplement.



DAVID HOWE
Commercial Sales General
Manager UK & I

At Goodyear we are passionate about providing leading fleets with a total mobility solutions package, including innovative products, service and technological solutions to ensure the right product is fitted to the right application helping to reduce the total cost of ownership for a fleet.

We are committed to delivering outstanding performance with our industry-leading products in the KMAX and FUELMAX ranges, OMNITRAC and retreaded tyres. Our focus has been on reducing the total cost of ownership for fleets through

tyre technology that reduces rolling resistance.

Reducing the total cost of ownership is not only achieved by fitting a great product, it is imperative to team it together with dedicated service and data knowledge and our TruckForce service is the UK's only dedicated truck tyre supplier and service provider, operating 365 days a year, 24/7. The network provides numerous leading fleets in the UK with one-to-one service ensuring tyres are providing the best possible results and are well maintained.

Service through the TruckForce network pairs well with

Goodyear's Proactive Solutions. This is a full suite of data-based solutions, featuring advanced telematics and patented predictive technology, that provides commercial fleets with precise, real-time monitoring of the tyre to help prevent incidents and streamline fleet management through preventative maintenance with significant tyre cost savings, helping fleets to be more efficient.

The Goodyear Total Mobility package, featuring all of the above elements, helps fleets avoid incidents, further reduces their total cost of ownership and increases the efficiency and performance of their vehicles.



The intelligent choice.

Premium tyres and a range of services and solutions committed to maximising your fleet's performance

- > Tyres optimised for your application, driven by your needs.
- > The ContiPressureCheck™ tyre pressure monitoring system improving efficiency and safety.
- > Conti360° Fleet Services Network dedicated to help you achieve the Lowest Overall Driving Cost and keep your fleet on the road.



Industry research gives commercial fleets some invaluable advice

Commercial fleets have been given an invaluable insight into tyre husbandry by Bridgestone, courtesy of an industry-leading piece of research in partnership with Highways England.

Bridgestone's 18-month plus Tyre Debris Study has confirmed that commercial drivers and fleet operators can reduce accidents – and downtime – through regular tyre and yard checks before departures. The study also revealed that retreaded tyres show no greater likelihood of failure than that of a first life (new) tyre.

The painstaking piece of work analysed 472 samples from failed commercial tyres retrieved from the M1, M6, M40, M5 and M42.

The headline findings revealed that 65 per cent (310) of tyres failed due to road/yard debris penetration, with six per cent failing due to overdeflection (eg underinflated) and five per cent maintenance (19 per cent was classed as 'indeterminate' where no cause

could be definitively ascertained and five per cent was attributed to 'other issues').

➤ To see Bridgestone's tyre debris study brought to life, visit youtu.be/-KSt1a1ndgc

The results reinforce Bridgestone's advice to conduct forecourt and vehicle tyre checks before setting off on journeys, as the company believes that much of the debris would have originated from the yard itself.

Bridgestone's Technical Manager Gary Powell, who oversaw the analysis of the debris with lead field engineer Peter Moulding and the rest of the firm's technical department, said: "With proper vehicle inspection and maintenance programmes, many of the failure methods noted may have been detectable and preventable.

"We would recommend that proper tyre maintenance and tyre





husbandry management is vital for reducing downtime of vehicles resulting from tyre-related failures, in light of these results.”

Bridgestone has also come up with the following tips to keep commercial fleets on track in future:

- a regular sweeping/cleaning programme should be instituted at premises to avoid accumulating potentially damaging debris
- correct pressure management is vital for preserving the service life of the tyre so should be incorporated into your regular tyre husbandry programme
- proper vehicle maintenance is vital for reducing downtime due to mechanical breakdown

Richard Leonard, Highways England’s Head of Road Safety, said: “England’s motorways are the safest in the world, but we’re determined to reduce the number of people killed and seriously injured on them.

“Bridgestone’s important research confirms our view that road users must play a bigger role and get into the habit of checking tyre pressures and tread depths and looking out for nails and other debris stuck in tyres before setting out on journeys. These simple checks could save lives.”

➤ For more on Bridgestone’s tyre debris study with Highways England, contact Ben Smallman on 07833 463195 ben@smallmanmedia.com

FTA’s view

FTA is concerned about the reliability of the Strategic Road Network (SRN) and while pressing Highways England for improvements to the network, we feel that we should also play our part in helping to reduce the causes of delay on the SRN.

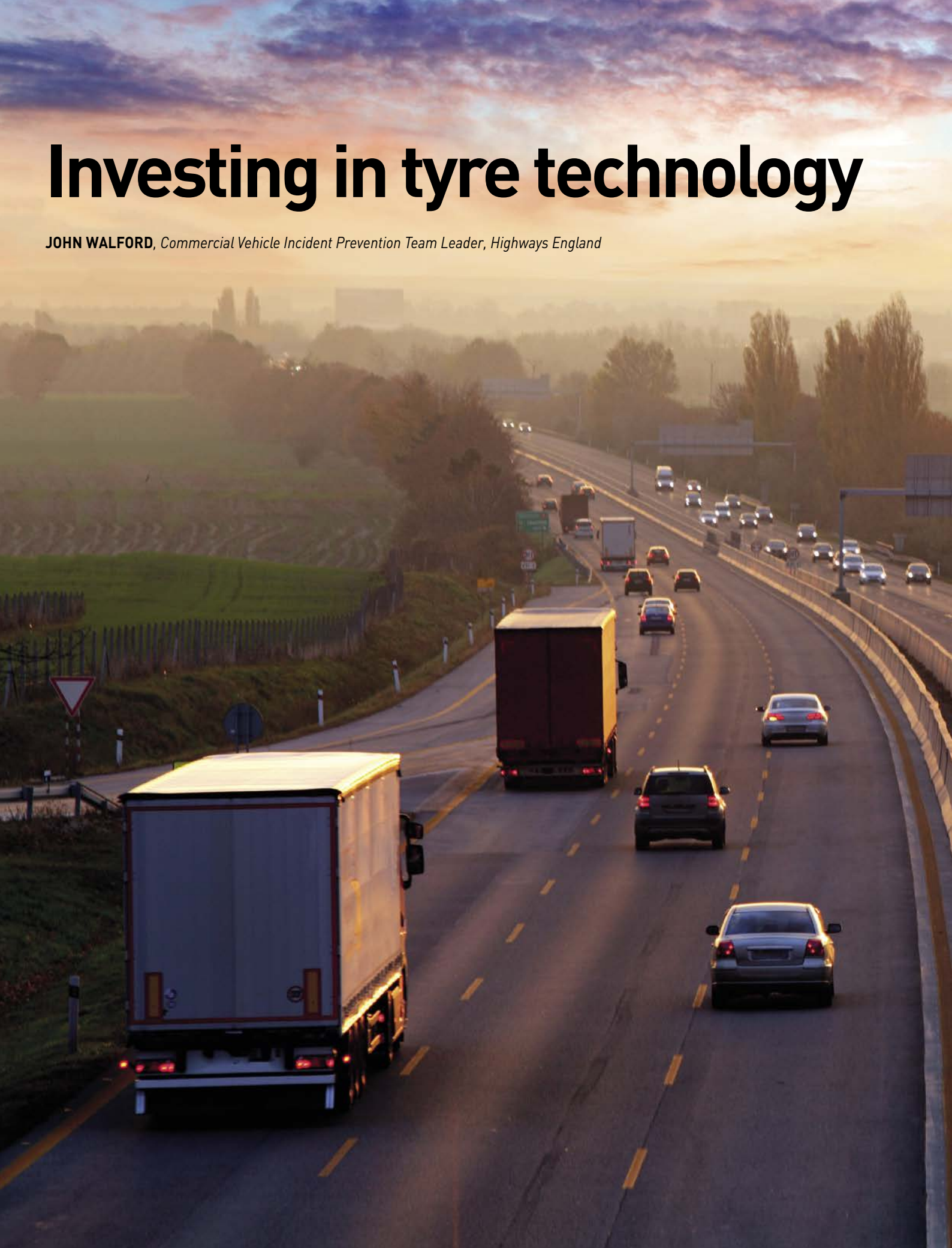
We believe that the work done by Highways England in partnership with the tyre industry has highlighted some issues that can be avoided with some careful checks to vehicles before a journey begins.

We are grateful for the balanced input by all into the data and options within this supplement.

Malcolm Bingham
Head of Road Network Management Policy, FTA

Investing in tyre technology

JOHN WALFORD, *Commercial Vehicle Incident Prevention Team Leader, Highways England*



How tyre pressure helps to optimise fuel efficiency

Maintaining correct tyre pressure is a proven way to maximise fuel efficiency while achieving lowest overall driving costs (LODC). Incorrect tyre pressure is one of the greatest causes of excessive tyre wear and leads to irregular wear patterns. This, in turn, reduces fleet performance and fuel efficiency, decreasing the tyre's life and increasing running costs.

An underinflated tyre creates more rolling-resistance, raising fuel consumption, and fuel is the biggest budgetary expense for any fleet, by far. If a tyre is underinflated by 20 per cent, this can increase fuel consumption by up to three per cent.

Regular checks ensure that tyres are at the correct pressure, and therefore not causing excessive fuel consumption. Fleet operators should always consider the vehicle application and harmonise the pressures specifically according to vehicle operating conditions.

Digital solutions, such as ContiPressureCheck™ tyre pressure monitoring systems (TPMS) help to maintain the correct pressure via sensors fitted within the tyres and is a proven way to help lower fuel usage. The systems provide tyre fitters with much more accurate information on the condition of the tyre, indicating how long it has been running underinflated and whether it needs to be repaired or replaced.

ContiPressureCheck™ tyre pressure monitoring systems help operators accurately manage tyre pressures, providing the best possible fuel efficiency and avoiding costly and dangerous blow outs. The sensors fit inside the tyres and have a life expectancy of some six years. They can be removed and refitted into fresh tyres whenever required, while the in-cab monitor for drivers can be used for much longer.

➤ More from continental-tyres.co.uk/truck

Continental 
The Future in Motion

Between 1 April 2015 and 31 August 2016, 58,612 tyre-related breakdown incidents were recorded on the strategic road network. Of these, 20,007 (34 per cent) involved commercial vehicles.

Highways England believes underinflation was a significant factor in the high number of commercial vehicle tyre failures. The company initiated a pilot at Keele Motorway Service Area, just off the M6, where sophisticated technology was installed to enable drivers to check their tyre pressures by simply driving over sensors installed in the road surface. Approximately 30,000 commercial vehicle tyres were checked and 1 in 12 tyres was found to be underinflated by more than 20 per cent from their nominal pressure.

Comparing the number of tyre incidents recorded between J14 and J17 on the M6 for eight months before and after the tyre technology pilot (July 2014 to Feb 2015: 510 incidents, Jan to Aug 2016: 457 incidents) showed that incident numbers decreased by 10 per cent. This suggests the pilot had an effect in reducing tyre-related breakdown incidents.

To validate the pilot, Bridgestone and Highways England worked together to carry out a tyre research initiative over 18 months starting in January 2016. The findings came from 1,035 pieces of tyre retrieved from the M1, M6, M40, M5 and M42, the statistics revealed.

The tyre debris came from cars, vans, commercial vehicles and motorbikes. Underinflation of tyres was a key theme, along with poor vehicle maintenance, both of which accounted for 26 per cent of the entire sample.

Building on the pilot at Keele and the research with Bridgestone, funded from Highways England's Designated Fund for Innovation, the company is now taking forward initiatives with the industry to understand and promote the development of better tyre care. One of these projects is to promote greater use of technology to reduce the risk of commercial vehicle tyre failures.

As a result, Highways England is doing further live tests of technology which could help reduce truck tyre failures on the country's strategic road network (SRN) by up to 75 per cent.

Since February 2019, the WheelRight technology used at Keele is now being tested at a number of different operational environments as part of a year-long project at the following locations:

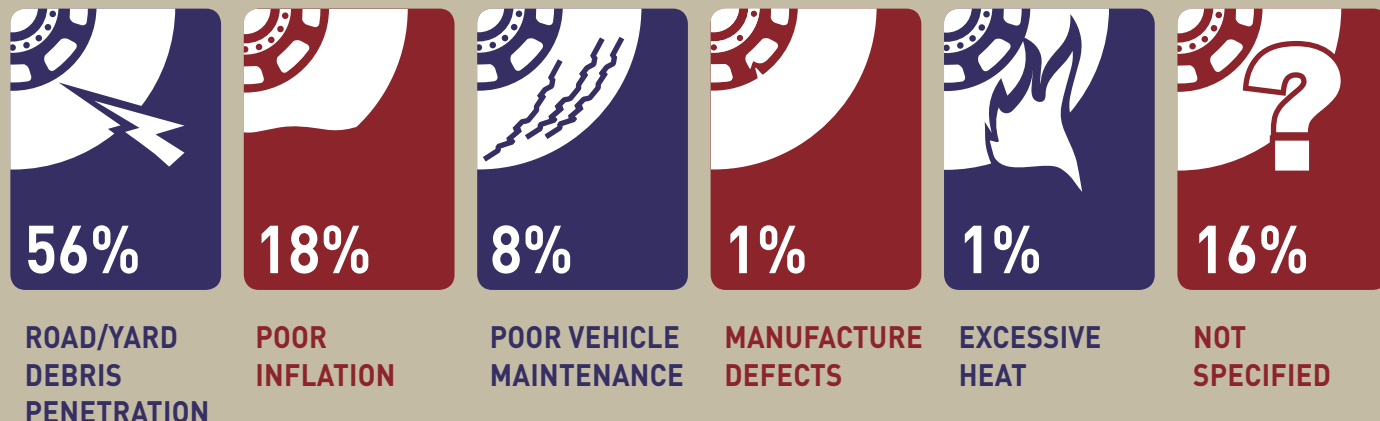
- John Lewis Partnership – Milton Keynes
- AW Jenkinson Transport – Penrith
- Driver and Vehicle Standards Agency (DVSA weighbridge) – Cuerden (M62)

The technology is a drive over tyre pressure, tyre tread and vehicle weighing system. As drivers approach the sensors, an ANPR (automatic number plate recognition) camera reads and records the vehicle registration and a second camera photographs the vehicle. Tyre pressure and vehicle weight are measured using sensors, which are embedded in a strip that is flush with the road surface and other sensors depending on the size of the vehicles to be measured.

Once drivers drive over the equipment, results can be displayed using a traffic light system (green, amber and red warnings) or at a touch-screen monitor, which can provide a print-out of the result. The purpose of the equipment is to provide information to the driver or the fleet or transport manager, and not to say whether the vehicle is roadworthy or not.

The technology can operate in an 'open environment' such as a motorway service area, where specific vehicle details are not known. A print-out is provided and readings are stored in a cloud database

REASONS FOR TYRE FAILURE



against the vehicle registration.

Alternatively, it can work in a closed environment such as a transport depot. Measurements can be taken against those on record for the specific vehicle. These can then be texted or emailed to the driver or transport manager. To identify trailers and measure them against recommended pressure and weight values, RFID (Radio Frequency Identification) tags are used.

The 'weigh in motion' capabilities of the technology are accredited by National Measurements Office to Class 10. The equipment has the capacity to accurately measure vehicle tyre pressures and weight at up to 5mph meaning that queuing is minimal; particularly in a closed environment where drivers do not need to get a print-out. ANPR cameras are used to record vehicle registration and a digital photograph to record the vehicle checked.

Initial feedback from John Lewis Partnership's depot at Magna Park, Milton Keynes is very positive. Garry Burns, manager of primary transport at John Lewis Partnership, said: "We've had the WheelRight system in place for several months now. The reporting

information is very clear and gives us all the information about the state of our tyres. It's gone really well, and the drivers have bought into it too. In our opinion, it's an important piece of kit to have. I'd like to see it in more of our sites."

Echoing this sentiment, Tony Pratt, shunter driver at the Milton Keynes depot, added: "From a user's point of view, it's hardly there – you just drive over. As a piece of technology, it's just incredible that something can measure the tyre pressure and tread depth in the time it takes to drive over the kit – and inform the office before you get there!"

National transport business AW Jenkinson reports similar encouraging results from its adoption of the system at its Penrith location. Ian McGregor, head of fleet management at AW Jenkinson Transport, said: "So far, the system has been very beneficial to us. Having the tyre pressure feature alone is a major plus, because we can catch any issues at source; so trucks aren't going down the road with faulty tyres – thus causing a lot of problems. The temperature monitoring of the hubs gives us warning if there is a calliper sticking or a wheel bearing on its way out. And tread depth obviously speaks for itself – it's all-important to a well-run fleet."

➤ For more information contact the Commercial Vehicle Incident Prevention Team – IncidentPrevention@highwaysengland.co.uk



The system has been very beneficial to us... it's all-important to a well-run fleet.

Recovery Service

A close-up, low-angle shot of a car's front wheel and tire, resting on a gravel surface. The tire is a light-colored, possibly off-white or cream, with a visible tread pattern. The background is blurred, showing more of the gravel and a hint of the car's body.

We won't let you down

A decorative horizontal border consisting of a repeating pattern of red and blue chevrons.

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*compared to standard AA PFU rates

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Goodyear Total Mobility.

A tailor-made toolbox for fleets to stay ahead of the game.

The life of a commercial fleet operator is a busy one. With customer satisfaction, driver management and vehicle upkeep constantly on your mind, it can feel like there are endless variables to consider, and tyres might not always top your list of priorities.

That's why, over the years, we have evolved from a tyre manufacturer to a full mobility solutions provider. Now, we're proud to launch **Goodyear Total Mobility**, a tailor-made, end-to-end value proposition, created specifically to address the challenges today's commercial fleets face. With a complete range of innovative tyres and solutions, all supported by a professional service network, Goodyear Total Mobility is a one-stop option, developed with insights from commercial operators to cover all of their daily needs and specific fields of operation.

Enhanced fuel efficiency and mileage

Though tyres represent around 3% of vehicle operating costs, they can influence 40% or more of a fleet's total operating cost. That's why, we are pleased to present our latest addition to Goodyear Total Mobility, the new Goodyear **KMAX GEN-2** and **FUELMAX GEN-2** tyre ranges. Specially developed for on-road fleet operators looking for a more balanced performance in inter-regional and long-haul applications including enhanced fuel efficiency and mileage in all weather conditions. All contributing to keep the truck on the move.

The **KMAX GEN-2** and **FUELMAX GEN-2** ranges are responding to the continuing demand for high mileage tyres, the need for increased levels of traction throughout the entire tyre lifecycle and to cope with a wider range of load variations.

The **KMAX GEN-2** and **FUELMAX GEN-2** will feature the latest technology that Goodyear innovation has to offer, such as an embedded radio frequency identification tag to connect each tyre individually to

KMAX S GEN-2 KMAX D GEN-2



management and tracking systems. Among other benefits, all new tyres will also adhere to the latest regulations for winter bearing the Three-Peak-Mountain-Snow-Flake (3PMSF) marking. Also due to their low rolling resistance, they are contributing to lower truck CO₂ emissions.

Reduced downtime

When it comes to tyre maintenance, we believe that prevention is the best solution. That's why we have developed a range of innovative tools, all with the specific intention of helping to keep your fleet on the road and operating efficiently and effectively. Goodyear offers thousands of combination of tyres and services in combination with solutions such as **FleetOnlineSolutions**, our internet-based fleet management program, and **Goodyear Proactive Solutions**, which uses in-tyre sensors to provide a real-time overview of their pressure and tread depth, and has been found to prevent up to 85% of breakdowns, and are all an integral part of Goodyear Total Mobility just like the innovative tyres and extended service network.



We are also proud to offer our ground-breaking **Multiple Life Concept** as part of this customized

approach, which combines the practices of regrooving and retreading in order to extend the life of your tyres, reduce running costs and improve your fleet's CO₂ footprint.

Always on

In an ideal world, roadside assistance would never be required. Accidents happen though, and more often than not, an emergency will inevitably strike at the most inconvenient time. With access to Goodyear's ServiceLine24h commercial support network and TruckForce, your drivers will have the support they need, whenever they need it.

TruckForce is the UK's dedicated truck tyre supplier and service provider and offers crucial truck tyre servicing and breakdown assistance throughout the entirety of the UK and is active in over 2,000 locations across Europe.



Our job at Goodyear is to help our customers excel at theirs, hence Goodyear Total Mobility was built on customer feedback. With a seemingly endless range of solutions on the market, the security and convenience of knowing that a single proposition can address the key challenges means that operators can focus on what really matters, their business success.

For further information email uk_marketing@goodyear.com or visit truckforce.co.uk, contact us.

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Tyre husbandry

PHIL LLOYD

Head of Engineering Policy, FTA

it's not rocket science!

With so much focus being placed on tyres now, FTA thought it would be useful to provide some simple tips on how to check tyres to keep your vehicles safe and drivers/operators compliant.

If you would like more details on tyre or wheel security best practice, then take a look at the guidance documents FTA has helped produce:

➤ fta.co.uk/CMSPages/GetFile.aspx?guid=ea3d1b3d-9f44-4ffe-8784-32cd65769d07&lang=en-GB

➤ soe.org.uk/uploads/assets/uploaded/f73c8810-ab5b-484f-ac4adf98f04bf14c.pdf

As the responsibilities for checking tyres fall into two main camps – those of the driver and those of the maintenance staff – we have divided the tips into those two areas.

DRIVER CHECKS

TPMS (TYRE PRESSURE MONITORING SYSTEM) OPERATION – TYRE PRESSURES

If your vehicle and/or trailer is fitted with such a system, they tend to be fairly easy to check.



In the main, manufacturers' TPMS systems fitted to vehicles use a dashboard light, which is generally illuminated when the ignition is switched on (which indicates that the system is being checked) and then goes out – unless it has identified an under-inflated tyre.

If the light stays on (or your vehicle has some other type of warning system – which may be a written display telling you which tyre is underinflated), then the system is warning you of an underinflated tyre and this you should investigate before using the vehicle on the road.

If your vehicle and/or trailer is fitted with an after-market system, then you should check this system in line with the manufacturer's instructions.

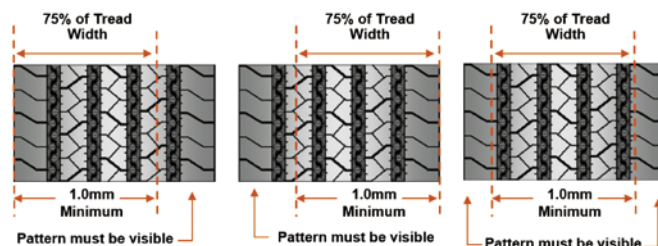
If DVSA (Driver and Vehicle Standards Agency) finds that you have been driving a vehicle for some time with a TPMS light on, or warning system active, then they may take enforcement action.

TREAD DEPTH

Although it can sometimes be difficult to check the tread depth of some tyres, due to covers or mud flaps, getting a general idea of tread depth is not too difficult a task as you can feel for this as well as look.

The minimum legal limit for tyres on commercial vehicles (over 3.5 tonnes) is 1mm (that's about the thickness of the rim on a coin) over 75 per cent of the breadth (width) of a tyre, around the entire circumference, with visible tread on the remaining 25 per cent – so you must be able to see some tread – watch out for bald patches.

If you are running a vehicle with tyres close to the legal limit, then you are asking for trouble. Our advice is 'if in doubt, check



it out' – get your maintenance provider, technician or tyre fitter to assess the tyre(s).

TYRE CONDITION AND DEBRIS

Checking the condition of tyres can be a little more problematic, as you often cannot see or feel the whole tyre, but that's no excuse for not trying. A recent report suggests that a lot of tyre blow outs are due to foreign objects having penetrated the tyre. So, you need to look for objects stuck in the tyres and/or cuts in the tyres. If you can't see the tyre, then with a gloved hand feel around the tyre tread and walls looking for items that should not be there. Be careful if you try to dislodge objects, as they may fly out and cause injury.

TYRE WALL CONDITION

This part of the tyre is easy to see for outward facing tyres, but rather difficult for inward facing tyres or the inside of twin tyres. If you can't get direct vision, consider using a mirror.

Cuts in the walls of tyres tend to be the main problems, but bulges in tyres can also be a problem, so you need to be checking around the whole of the tyre. It will usually be the area you can't easily see where the problem will be.

The perishing of tyres can also cause problems – though these should be being picked up and addressed at regular safety inspections/services.

WORKSHOP CHECKS

TPMS OPERATION

This is just the same check a driver would make.

TYRE MARKINGS – MEANINGS

Although most tyres tend to be replaced like for like, there are times when this is not the case and that's when the problems start.

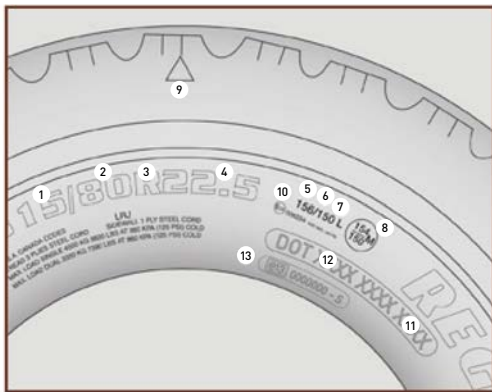
How do you know the tyres are correct for the vehicle/trailer? Well there are a few simple basics – tyres should always be:

- 1 the same size across an axle
- 2 of the same composition as the other tyres across an axle
- 3 marked with a load index capable of carrying the plated weight of the axle upon which it's fitted
- 4 fitted in accordance with the manufacturer's markings, ie where marked as such, be fitted so as to rotate in the direction indicated on the tyre wall.

For an understanding of the load index of tyres go to the HGV Inspection Manual IM number 07 – Size and Types of Tyres.

➤ assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/794800/hgv-inspection-manual.pdf

The following explains what the markings are on tyres.



PRINCIPAL TYRE MARKINGS

1. Tyre Section width
2. Aspect ratio
3. Construction (R=radial)
4. Rim diameter (inches)
5. Load Index (single tyre)
6. Load Index (dual mounted)
7. Speed symbol
8. Load indices when used at alternative maximum speed
9. Location of tread wear indicator
10. Type approval number
11. Manufacturing date code
12. DOT manufacturing site code
13. Supplementary type approval information

FTA's advice when checking tyres is:

- 1 ensure that the size and load index of the tyres fitted to the vehicle/trailer are the same or higher than that stated on the Plating Certificate
- 2 where 1) is not known, that the tyres are checked for compatibility to the carrying capacity of the vehicle/trailer
- 3 that you record the first tyres you see on each axle and check that all the others on the same axle are the same size and rating – where you note a difference, then you should check for compliance.

Remember, not all tyres will be the same size, aspect ratio, or have the same load index. Our advice is not to assume anything and check each tyre separately, comparing those on the same axle against each other and all of them against the vehicle's plated weight. On twin tyres, always remember to check the marking on the inner tyres.

An easy way to do this is to note the details of the first tyre you check, and assess all the others against this – it's only where the tyre sizes may change, usually in the case of steered V Drive, but even noting a second tyre size cuts down the information you are trying to keep in your head.

TREAD CONDITION AND DEBRIS (ALSO BETWEEN TYRES)

Unlike the driver's check, during a safety inspection the whole of each tyre should be inspected for tread depth, condition and for foreign objects. To do this properly will mean either moving the vehicle or rotating the tyre the whole 360 degrees to check it properly.



You should also try and assess the condition of the tyre walls between twin tyres, particularly on tippers or those that are used in construction, as there may be debris or damage caused from debris. Finding bricks lodged between twin tyres can be quite common and if not removed, can be very dangerous to road users.

Although the legal limit is only 1mm, this is a minimum and consideration should be given to the amount of wear and tear the tyres will be subject to before the vehicle's next inspection. Tyres should be changed at the depth dictated by the operator. If this is unknown you should inform the owner/operator immediately when the tyre is worn to within two or three millimetres, so a decision can be made over its potential replacement. Regardless of the tyre tread depth, we strongly recommend that the minimum depth of all tyres is recorded on safety inspections.

If the tyres have been recut, you need to pay particular attention to the recutting to ensure that it has not exposed or damaged the tyre cords. If so then the tyre will need to be replaced. Remember recut tyres are only allowed to be fitted to vehicles with an unladen weight of 2,540kg or more and to trailers with an unladen weight more than 1,020kg.

UNEVEN WEAR

When assessing the tyre, look for unusual wear characteristics as this may indicate problems elsewhere with the vehicle/trailer that may need attention.



TYRE WALL CONDITION

Although it is true that most damage to side walls is concentrated on the outer walls, it's important not to overlook inner walls as these tyres may be or may have been rubbing on parts of the vehicle when laden or may have suffered damage when in use.

On twin tyres, try and check the inner facing walls. This can sometimes be rather difficult, so consider using a mirror to help.

Cuts – unless these are minor surface cuts, you should investigate all cuts to ensure that they have not reached or damaged the tyre cords, if so the tyre will need to be replaced. Always be careful when probing a tyre and never use a sharp implement, doing so could damage the tyre further and result in injury to yourself.

Bulges – if these indicate a failing of the tyre, then the tyre should be replaced. However, don't confuse these with manufacturing undulations. Manufacturers' undulations tend to be regularly spaced and hard to the touch. So if it's squashy, then the tyre integrity has been compromised and it should be replaced.

Perishing – there is a lot of discussion regarding the age of tyres currently; age and other factors can contribute to the structural integrity of tyres, so along with assessing the age of the tyre (see

markings on page 15) you need to assess the state of deterioration. If in doubt, throw it out!

MANUFACTURER'S INSTRUCTIONS – DIRECTIONAL ROTATION, ETC

Although not regularly seen on commercial vehicles, tyres must be fitted in accordance with the manufacturer's instructions. 'Directional rotation' and 'Trailer Use Only' are two instructions that may be noted – and can sometimes be difficult to see.

TYRE INFLATION

During service/safety inspections tyre pressures should be assessed and where necessary set to either the manufacturer's recommendations, or those specified for the vehicle/trailer. Reliance should not be placed on any TPMS as many of these will not detect overinflation.

Images on pages 14 and 15 reproduced from *Guide to Tyre Management on Heavy Vehicles*

Vehicle Inspection Service (VIS)

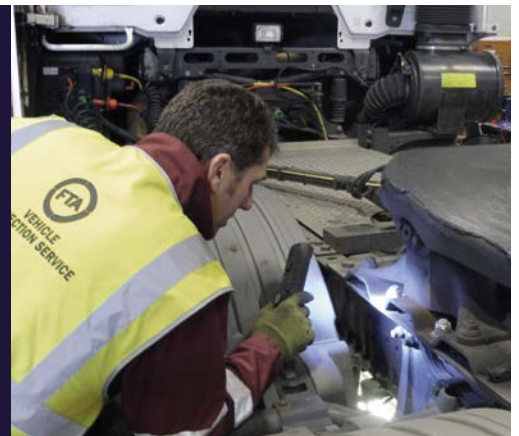
Industry leading UKAS-accredited inspections and compliance reporting covering HGVs, vans, passenger vehicles, tankers, specialist vehicles and mechanical handling equipment.



The VIS team of engineers covers the UK and Republic of Ireland and works with some of the biggest names in logistics across a wide range of industry sectors such as retail, construction and 3PL operations. FTA also provides this service to a large number of small and medium-sized enterprises.

You should regularly inspect your vehicles to:

- Ensure compliance with the latest legislative requirements.
- Reduce the risk of safety critical defects that could contribute to accidents.
- Save money on costly repairs that occur when defects are left.
- Prevent the possibility of vehicles being prohibited, drivers receiving graduated fixed penalties and assist with the improvement of your operator compliance risk score (OCRS).



VIS services by operation

Commercial vehicle inspections

Our most popular services include: roadworthiness, maintenance, pre-purchase due diligence, gate check inspections, as well as inspections of lifting equipment (Loler) and the Department for Environment, Food and Rural Affairs (Defra) Certificate of Approval for Road Vehicles Inspections.

MHE (mechanical handling equipment) and racking inspections

Our warehouse inspection service covers a large variety of mechanical handling equipment and it is designed to make

warehouse safety your main priority and save you the cost of non-compliance.

Passenger-carrying vehicle inspections

A variety of inspections to help ensure safety, compliance and reduced downtime due to faults.

Tanker inspection and certification inspections

Comprehensive examinations of tankers and their associated equipment in accordance with the current road transport regulations for dangerous goods movement.

Careful wear you tread!

The luckiest tyres get to spend their lives on smooth tarmac and are checked regularly. But not all tyres live this way. Some have to go off-road, on to building or landfill sites, or quarries. They're slashed and stabbed, perforated or torn one way or another by the aggressive land. Which means there's little chance they can be trusted to last from one inspection to the next.

What does the P in PMI stand for?

Preventative.

It's a system designed to flag up defects **before** vehicles and trailers fail on the road network and risk the safety of the public and other road users.

But checking is only worthwhile if someone acts on what is found.

Take tyres, for example. As

Traffic Commissioners, we frequently see tyres on preventative maintenance inspections signed off as roadworthy with 2mm, even 1mm, of tread.

That tyre **may** be safe and legal on the day of the inspection. But it won't be before the next one.

PMIs are there to ensure that the tyre **never** becomes illegal. The technician performing the inspection and his or her supervisor need to know what the vehicle or trailer will be doing from the day of the inspection until it's due to be submitted for its next check.

They must then make a careful judgement on whether or not that tyre will still be legal by the time it's seen again. That's a demanding request.

A simpler, safer, approach is for operators to determine an appropriate tyre replacement or re-cutting policy. Operators can then instruct contractors that any tyre with less than, for example, 4mm of tread should be changed and not considered "roadworthy".

OFF-ROAD

Tyres that go off-road need more care; it's not about their quality, they're just subject to unpredictable violence. They need to be checked by their driver every time they return to safe tarmac.

The lives of these tyres are better if a contractor checks them over every weekend in case a driver has missed something. The tyres can be a bit precious, though. If they don't get proper care, they'll expose their wounds, often to someone on the roadside in a high-viz jacket.

Tyres don't want to escalate matters to an angry explosion on the road. But if they're not managed properly, something catastrophic can happen. That's not their fault – you can't blame them.



Traffic Commissioner
Kevin Rooney

Tyre tales from the public inquiry room

■ Tyre with 1mm tread sent out on the road

A TC's check over preventative maintenance records of a north west haulier disclosed some stretching of frequencies, inadequate first use checks by drivers and a vehicle with tyres at 1mm. The vehicle was allowed back onto the road with a decision made by the operator to "monitor", even though the contractor described the need for a safety critical repair.

■ Walkaround check in dark leads to underinflated tyre

Another north west haulier received an immediate prohibition for a seriously underinflated tyre. The driver, who was the operator, accepted that the walkaround check had been compromised by carrying it out in the dark without a torch. The same operator received an 'S' marked prohibition for a trailer tyre worn to 0.3mm, and yet another for a tyre that was so flat it had become unseated from the rim.

■ Bald tyre out on the road after PMI

A West Midlands skip operator had a tyre identified as "bald" at PMI, and the same tyre identified as still "bald" by the driver in the following days. Perhaps he thought the P in PMI stood for "pointless".

■ No place to record tyre pressures

A Surrey scaffolding company was using PMI records that had no provision for recording tyre pressures – he is far from alone in that. See DVSA's Guide to maintaining roadworthiness for examples of compliant record sheets.

■ Driver fails to spot cuts to cords

A Scottish tipper operator received an 'S' marked prohibition for a tyre with serious cuts to the cords in the tread area. Apparently it must have happened in the seven miles from the yard to the check-site as it was perfect when the driver left base.

■ Two tyres with tread depth of 0mm

A West Midlands iron and steel merchants had two tyres reported at PMI with a tread depth of 0mm – no rectification action was noted. The DVSA Vehicle Examiner noted that the torque wrench was out of calibration and it later had to be scrapped.

These are just a few examples of what TCs hear day after day. Our most significant decisions are available online – search for Traffic Commissioner regulatory decisions.

UNDER PRESSURE

Tyres are scary things. But they don't need to be.

They can't do their job unless they've got 100 or so PSI of air pressure inside them. Is fear of a potential explosion the reason technicians don't take their air pressure?

Don't be afraid. The tyre will live longer for being given the air it needs – but be careful, take the proper precautions.

Now your tyres are properly sorted on their wheels, the next challenge is keeping the wheel attached to your vehicle. That's something to explore in more detail another time but not cleaning mating faces, not torquing using a calibrated wrench and not re-torquing thereafter are basics that we expect operators to practice. Any lube should be used sparingly.

So the advice from Traffic Commissioners is:

- risk assess your tyre wear and set down a clear policy for when tyres are replaced or recut
- if you run off-road, drivers should check every time the vehicle leaves the hostile environment
- consider an external contractor checking tyres every week or every fortnight, again based on your assessment of risk
- follow established guidance on wheel security and document it



Bridgestone states case for Bandag and retread products

Bridgestone's unwavering investment in the retread tyre sector is maintaining the company's position as a genuine leader in this market.

Bridgestone's North Region Truck & Bus Product Manager Terry Salter said that Bridgestone's strategic decision to keep prioritising in retread technology during a particularly lean period could now be fully vindicated, with a significant investment in equipment being brought into the company's UK franchised Bandag network and factories.

He said: "Throughout the very difficult climate, Bridgestone has stayed fully committed to its retread proposition and franchised Bandag network of retread factories. Our retread products underline our commitment to the 'Total Tyre Care' range of services. Each truck tyre features retreading technology built into the original tyre design, with the life of every tyre maximised through audits, reports and tyre care husbandry."

Bandag retreaded tyres are not only a safe and reliable alternative to a new set of tyres, but also a solution for reducing fleets' tyre-related costs per kilometre. This proposition applies also to retreads made from Bridgestone and Firestone tyre casings – for which the retreadability by Bandag is also 100 per cent guaranteed.

The world's largest tyre and rubber company¹ has always remained steadfast in its belief in the retread sector, confident that the good times would return owing to the quality of the products, their value for money and the benefit to the environment as a whole.

The UK operation has benefitted from a sustained investment programme to make it one of the most efficient in the industry, with new buffing, building and inspection equipment being ordered for rapid installation in the last six weeks alone.

At Bridgestone's Bulldog factory in Lincolnshire, a new tyre pressure chamber, shearography machine, 10 bar pressure tester and envelope spreader have all been purchased.

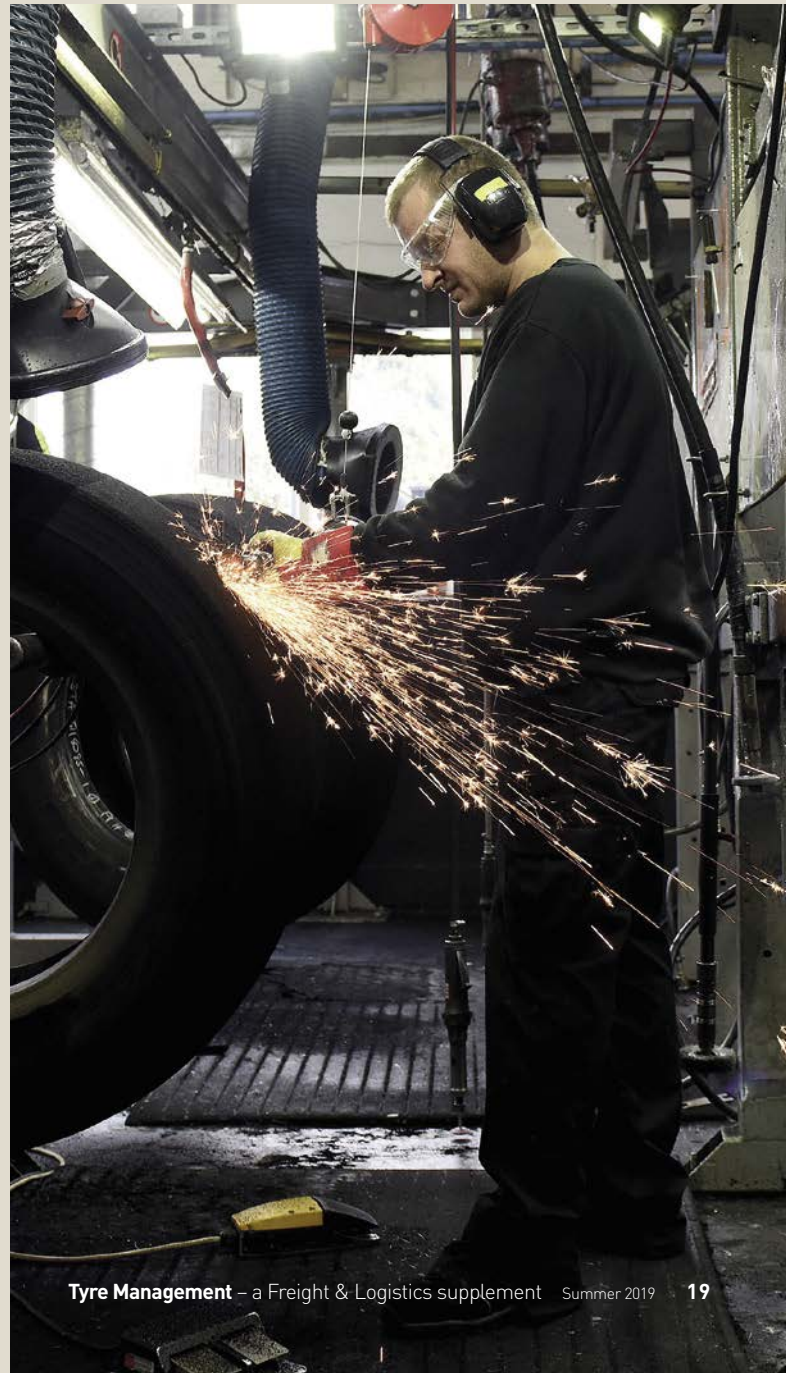
Meanwhile, the Bandag network has also been investing in its machinery, courtesy of extruder builder, pressure tester, buffer upgrade and nail hole detection machines. Another example of Bridgestone investment has been seen in the introduction of the BASys casing and production control system. The BASys system is the result of a global project with Bridgestone's European, American and Japanese strategic business units collaborating to upgrade a key aspect of Total Tyre Care. It provides the ability to track a tyre from the point it is removed from service at the fleet, through the return of the tyre to the production facility, and then through each stage of the production process and finally the return of the transformed product back to service. BASys was installed at Bulldog in February 2017.

This replaces a paper-based system and works off cloud-based technology and offers additional reporting benefits for commercial fleets.

Salter expects the good times to continue for the foreseeable future too, despite the retread market being notoriously difficult to predict.

"We predict a sustained investment into retreaded products across the industry. Our products will represent good value for money to the transport industry within the UK and Europe."

➤ For more information about Bridgestone's commercial tyre offering, visit bridgestone.co.uk/truck-and-bus/



¹ Based on 2016 tyre sales. Source: Tire Business 2017 – Global Tire Company Rankings

Engineering change



Interview with

PHIL LLOYD

Head of Engineering & Vehicle Standards Policy, FTA

■ What is your background in the industry?

My dad was an HGV mechanic. I used to help him out on the car at the weekends. After leaving school I took an apprenticeship as a motor vehicle engineer, gaining my HNC at Warrington technical college. I joined what is now DVSA as a vehicle examiner in the late 1980s, specialising in ADR, TIR and certifying PSV vehicles. Moving into management, I looked after test stations, before becoming a regional manager and then head of operations for testing. I worked on the merger of VOSA and DSA and became head of operations for driving standards. In total I worked at DVSA for more than 30 years – it was extremely enjoyable, although often quite challenging. After leaving DVSA I became self-employed, providing technical training for MOT testers and undertaking consultancy, working with FTA and others.

■ When did you join FTA and how is the role living up to expectations?

I joined in June 2018 and I find the role quite refreshing, as I no

longer have any staff to worry about (I had more than 2,000 indirect reports at DVSA) so am able to focus purely on policy and compliance matters.

■ What areas does your role cover?

I am primarily concerned with vehicle standards. If DVSA wants to change the criteria for underinflated tyres, for example, I engage with the Agency to ensure that the changes are realistic and achievable.

■ Do you maintain a close relationship with the Government motoring agencies?

Yes – DfT, DVSA and VCA. But given the nature of my role I work closest with DVSA.

■ How has the relationship between the Government agencies and trade associations changed over time?

Years ago, VOSA would not make radical changes without consulting the trade associations, but it doesn't always happen like that now. I want to change that relationship and constantly ask DVSA: 'What can we do with you?' and I am actively engaging with them, having regular one-to-one meetings with DVSA's heads of policy.

■ You also run FTA's Engineering Forums – how many are there and what sort of topics do they cover?

We run three – northern, Midlands and southern. I use the engineering forums to help steer me in the direction they wish to go. I'm the person in the room on the members' behalf so I'm trying to gauge what's their position, what's their appetite and what are their issues? Then when I'm having meetings with DVSA, DfT and others, I'm better able to explain what our members' issues and concerns are, so that we can come up with a better series of propositions. I can bring these back to the engineering forums where we discuss and secure agreement, or otherwise. I think DVSA and DfT both recognise that FTA's positions and views are genuinely informed by operators in the industry through our freight councils and working groups. Sometimes representative bodies can become mouthpieces for the staff who work there; these Government bodies recognise that FTA genuinely represents the views of indus-

try across all the modes we represent.

■ Do you invite guest speakers?

I tend to have a topic or theme for each forum. The last one we held was about engineer apprenticeships, which looking forward could become a big problem. So we need to be doing more on that. The one before that was on electronic brake performance monitoring systems, and the one before that was on tyre condition. I tend to invite someone pertinent to what the theme is, to help us with the discussion. For the meeting on apprenticeships I invited Sally Gilson, FTA's Head of Skills Campaigns, and representatives from the Society of Operations Engineers and IRTE, and we invited representatives from Bridgestone to speak at our forum on tyres.

■ Can you give an example of how discussion at a forum has led to a change in policy at DVSA?

The emissions light policy is a good example. DVSA implemented a policy where an emissions light failure would lead to a prohibition at the side of the road. What DVSA

hadn't allowed for is that there are different types of emissions indicator lights. So, working with the engineering forums, I helped DVSA lighten the change in procedures and processes which made allowances for the reality of the situation.

■ **How important is good tyre management to ensure a safe and efficient fleet of vehicles?**

Tyres have a vital role to play, particularly on road safety. After all tyres are the only part of the vehicle that touches the road. Because tyres are the flavour of the day at the moment, people tend to think they're a great big problem. I'm trying to step back a little. If you take an annual test, tyres aren't as big a problem as they were in the past. Some of that is from the design characteristics of tyres, and some of that is from better tyre husbandry. If operators have their tyre maintenance outsourced, the tyres and wheels are being assessed by specialists who understand their qualities. A lot of the problems stem from the incorrect inflation of the tyres, which in the past has tended to be overlooked. In general people are taking more note of the importance of tyres and the impact they have, not only on the safety of the vehicle but also on its efficient running. When operators can see an improvement in their fuel consumption, on seven or eight miles a gallon, that can make a big difference. With telematics there's a lot of focus on the driver and their driving style. If you match up tyre husbandry along with improved driving and an effective maintenance regime, then there can be big saving to be made. The analogy I always give people is that if you don't understand the



importance of tyres, watch the Formula One Grand Prix. The car has been designed and the aerodynamics are done, so you can't change those characteristics of the car once it's on the track, the only variable is the tyres. Two psi difference in a Formula One car has a big impact. Choose the wrong tyres, you lose the race.

■ **What is FTA's position in its submission to the DfT consultation on the use of tyres over 10 years old?**

We do not yet have a definitive position on this as we are currently consulting members at our series of regional freight councils. Personally, I think it's less about the age of the tyre than its condition. It's all about the perishing of the tyre, which tends to come

from ultra violet rays from the sunshine. A ten-year-old tyre in this country may be absolutely fine, whereas a five-year-old tyre in Arizona might be fairly dangerous. FTA's engineering forum's position is that ten years as a guide is a good idea, but saying ten years as a legal maximum is probably the wrong thing to do. Recently there was an incident involving a blow out on a coach tyre which was 18 years old. But what they don't know is what caused the accident. Was it an 18-year-old tyre that had a piece of metal in it that was only 60 per cent inflated? If a ten-year-old tyre has been well maintained and regularly inspected then there's probably nothing wrong with it – if

it's been correctly inflated all the time, the tracking has been good, and it's not been in direct sunshine all the time. My belief is that just because a tyre is ten years old doesn't mean it's dangerous.

■ **What motivates you to get up in the morning?**

I like to make a difference, so I am only interested in a job if I think I can bring value to it. In this role I think I can add value to help people to become more compliant or help those who are compliant to remain that way. I'm a people person, I can articulate an argument fairly well and because I come from an engineering background I have a deeper understanding of the issues. That's what gets me up in the morning to do the job.

Tyre management for operators

A robust tyre management system is essential for any professional vehicle operator and must be part of the fleet maintenance system.

You can have a system which is completely in-house or where certain parts of tyre management are contracted to tyre specialists. Either way, the operator is responsible for the safety of their vehicles and must ensure maintenance staff or contractors are technically competent in tyre safety and have adequate maintenance facilities.

Fundamentally, operators need to ensure that the tyres fitted to their vehicles or trailers are the correct type and size for the operating conditions and use. Unfortunately, we regularly see tyres fitted that don't have an adequate load rating for the maximum axle weight, which is an obvious safety issue in that it could lead to an overloaded tyre. It would also be considered as a significant failure of

the operator's tyre management system.

We also expect operators to monitor and manage the age of tyres. We have issued additional guidance on this in our Moving On blog but this could change following the imminent 10-year old tyre consultation recently announced by the Minister of State for Transport Jesse Norman MP. A tyre management system needs to include age monitoring, and if old tyres are being used the associated risks must be clearly identified and adequately mitigated.

It is essential that drivers carry out walkaround vehicle checks and report in-service defects, which obviously includes tyres. It is important to remember drivers must be suitably trained and updated to identify vehicle faults, including tyre defects, and fully understand what action to take if they identify an in-service safety defect. Depending on the vehicle usage, for example on rough terrain like quarry work, more frequent tyre checks should be carried out to ensure any damaged tyres are identified before the vehicle goes back onto the road.

Unfortunately, we see many tyre prohibitions for defects, like cuts, bulges and worn tread, which should have been spotted by the driver. Defects like these can cause a catastrophic failure of the tyre or affect

the vehicle control. If found by DVSA at the roadside, the vehicle would be immediately prohibited and immobilised. The driver would also be issued with a fine and have penalty points issued against their driving licence.

Monitoring tyre pressures is another key area that is often neglected. Underinflation is a main cause of premature tyre wear and failure, and it increases fuel consumption and affects the vehicle control. Any failed tyre is a road safety risk, and causes disruption and delays on the road network, which is a preventable cost to the industry.

Although drivers will visually inspect the tyres during the walkaround check, which includes any obvious signs of incorrect tyre inflation, this check does not normally involve measuring the actual tyre pressure with a gauge. The visual assessment is limited and will only identify when the tyre pressure has significantly deteriorated. We therefore strongly recommend that a tyre pressure monitoring system is used so tyre pressures are not only checked at the safety inspection or service.

There is a growing range of options for tyre pressure monitoring systems, from manual pressure cap indicators and automated gate-check systems, to manufacturers' fully integrated electronic tyre telematics applications. These systems can be implemented as part of tyre contract arrangements, as part of manufacturers' original equipment, or can be retrofitted. Therefore, operators of



DAVID WOOD
Enforcement Policy Manager,
DVSA (Driver and
Vehicle Standards Agency)

smaller fleets or older vehicles should realise they can affordably implement a tyre pressure monitoring system to their fleet.

Tyre prohibitions and MOT failures can often indicate a significant failure of the operator's maintenance system, which will lead to a DVSA follow-up investigation. This investigation will look at all aspects of the operator's maintenance system and establish the cause of the prohibition. If it is found that the operator has inadequate systems in place to maintain roadworthy vehicles, the facts will be reported to the Traffic Commissioner, who can take regulatory action against the operator. We want operators to effectively and proactively manage their fleet and avoid the need for a DVSA visit!

The important message here is that good tyre management is an essential aspect of the operator's fleet maintenance system, which will reduce overall costs, prevent delays and most importantly save lives.

➤ gov.uk/government/news/government-to-consult-on-ban-on-10-year-old-tyres-to-boost-road-safety
➤ movingon.blog.gov.uk/?s=tyres



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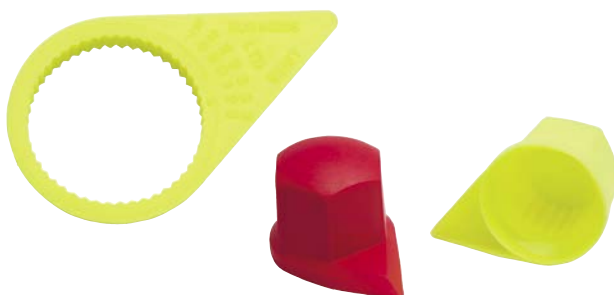


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