

# Worth the weight

Although heavy-duty vehicles at risk of running over weight are largely protected - with operators using onboard systems or weighbridges - when it comes to vans it's a different story. Brian Tinham reports

At first glance, it is astonishing that more commercial vehicles are not equipped at least with simple axle and gross vehicle weight indicators, or routine access to a weighbridge. It's not just about avoiding DVSA (Driver and Vehicle Standards Agency) fines and penalties for drivers and their companies, due to running overloaded - although those can be very costly. Nor should it only be about ensuring that vehicles are not subject to excessive, and ultimately expensive, wear and tear on running gear, steering systems, tyres, etc. There is also UK law, as enshrined in the Health and Safety at Work Act 1974.

These well-established regulations place a clear duty of care on employers to assess and manage risks to their employees and - just as important for owner-operators - others who may be affected by their work-related activities. Critically, this legislation applies not just in the workplace itself: all vehicles used for business purposes are equally

covered. So, in the event of an accident resulting in serious injuries or, worse, a fatality, if the authorities' investigations find that steering and/or braking were compromised due to overloading, company managers and/or their drivers may well be found in breach. Then they can expect to feel the full force of the law, including potentially custodial sentences.

Note that this applies to vans of all sizes every bit as much as it does to heavy trucks. The vast majority of truck operators are well aware of problems that might catch them out - loads don't always come nicely wrapped on pallets; weight can be variable with little or no relation to volume; and unloading presents its own challenges, arguably best met nowadays by load transfer valves (such as Haldex's EB-Plus, which reduces load on the rear trailer axle in a controlled fashion). Van operators, however, seem largely to be in denial.

Yet the figures for vans are quite alarming. Richard Collins, sales and marketing director of VPG Onboard Weighing, points to the fact that 93% of vehicles up to 7.5 tonnes stopped at the roadside are found overloaded. Clearly, that doesn't mean 93% of vans overall are running overweight: many will have been stopped for a reason. Nevertheless, it's a staggering statistic. And, as Collins point out, the fines alone can amount to £5,000 per axle plus £5,000 for a gvw infringement, meaning a possible £15,000 penalty. Meanwhile,

operators of vans in the range 3.5–7.5 tonne gross plated weight (or more than 1.525 tonnes where there is no plated weight) risk curtailment or even loss of their O licences and a commensurate impact on their O CRS (operator compliance risk score).

## STRANGE BEHAVIOUR

All of which is perplexing. VPG and others like it - including Bowmonk, Red Forge and VWS - have been selling onboard systems that monitor front and rear axles, as well as overall weight, for years. Indeed, in VPG's case, technology aimed at taking the guesswork out of loading vehicles has been available since 1985. However, price tag is inevitably an issue for low-margin van users, and Collins concedes that, at £1,000–£1,200 for an installed onboard weighing system, operators (especially trade users) aren't falling over themselves to get equipped.

"But, it's like so many things," he says. "Once you've had your house burgled, you're much more in the market to buy an alarm. People don't think their vans are overloaded anyway - until they get stopped. Remember, some vans' apparent capacity looks big, but 400–500kg maximum payload is not uncommon. With a system installed, you can load to the max without guessing."

Collins insists that would-be users worried about the maintenance burden should relax. "The technology has changed a lot. Our current systems are





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based on a state-of-the-art inclinometer that sits on the steel suspension - not the old spring deflection system that was so vulnerable. The system computes vehicle angle and suspension position, and is accurate to 2.5%. Generally, we recommend checking it on a weighbridge every three years."

There are similar systems based on pressure transducers for air bags. What's more, they can be retrofitted and calibrated within four hours, he says, with displays either on the dash or at the business end, so that drivers can see the impact on axle and vehicle weight as they load up. And weight data can be logged to a fleet's chosen telematics system so that managers can be made aware before vehicles move off and risk infringements.

Naturally, there are other ways of doing it, particularly (but not only) when it comes to larger, heavier vehicles. Vehicle Weighing Solutions (VWS), for example, offers axle weighbridges, as well as a choice of onboard overload protection systems. As managing director Julian Glasspole puts it: "It's horses for courses. Our Apollo cable-free weigh pads are available as static or portable systems, and both give the individual weight on each axle and the total vehicle weight. But, obviously, you have to take the vehicle to the pad. That's fine if your vehicles are depot-based, but for a

waste collection operator, for example, it's not so practical."

So, for the rest, VWS' choice is between its VOPS2 strain-gauge-based overload protection system, aimed at vehicles up to 7.5 tonnes and delivering 2-3% accuracy, or its Loadweigh CAN precision load cell equivalent for heavier trucks, which is capable of 0.5% accuracy. "That's designed for tippers, tipper trailers, RCVs [refuse collection vehicles] and the like, where operators want to run legal but maximise weight," says Glasspole.

**BUSINESS SENSE**

That said, installing a weighbridge can make even more sense than some realise. General haulage firm Cartwright Bros, of Hykeham, near Lincoln, chose an Axtex dynamic weighbridge - similar to the unit demonstrated at last month's RWM (Recycling Waste Management) show, at the NEC - not only to monitor axle weights and gvw of its own fleet of 60 trucks and 80 trailers to within 0.25%

accuracy, but also to sell a public weighbridge service to local operators.

Director Jamie Cartwright explains that the firm delivers some 2,500 Pall-Ex consignments a week, but that weight variations made optimising payloads and staying within legal axle and gross vehicle weight limits challenging. The Axtex system delivers the information this firm needs within the 40 seconds it takes to drive its vehicles over the plate. Data is recorded on a spreadsheet, which enables the traffic office to see which truck or combination is best suited to a load when a customer calls.

"This is helping us to use our fleet more efficiently and to respond to customers faster, as we send an SMS message to the driver so the load can be collected immediately," says Cartwright. "It also raises the comfort factor for our drivers who know that, when they pick up a load, it is legal."

What's more, the firm is paying for its weighing platform using Axtex's AIM (Axtex Install and Maintain) finance scheme, with fixed monthly instalments and a final payment, covering installation, any associated construction work and ongoing maintenance and calibration throughout the contract period. With the national shortage of weighbridges, that's an attractive proposition for dealerships, bodybuilders and truck stops. **TE**

