

3.5-tonne van MOT failures are unacceptably high and defective brakes are second on the list of causes after headlamps. Can more be done to reverse this worrying trend? Peter Shakespeare reports



# VAN BRAKEDOWN

**M**OT Class 7 vehicles in the United Kingdom are defined as commercial vehicles from 3.0 to 3.5 tonnes gross vehicle weight (gvw). In other words, a typical large panel van. Drop below this into the realms of the tradesmen's mobile toolbox coming in under 3.0 tonnes and the vehicle falls into the Class 4 MOT category, which also includes cars.

So why is this distinction significant? According to the Driver and Vehicle Standards Agency's last published data on MOT failure rates at press date (quarter 2 2020), 45% of Class 7 vehicles failed their annual MOT inspection. Of these, 17.6% failed due to defective brakes. Of significant concern, 42.8% of these defective braking systems were categorised 'dangerous' by DVSA. This represents a 100% increase compared with Class 4 vehicles.

Given that this type of van is the preferred vehicle for parcels and express distribution, it can clock up colossal annual mileages, often working six days a week. Despite their weight, usage and mileage, Class 7 vehicles only require an initial MOT three years after first registration. While the latest MOT failure statistics represent an improving trend over the preceding five-year period, they are still too high.

When asked why the initial MOT presentation period hasn't been

reduced to one year, as is the case for large goods vehicles, DfT stated there are currently no plans to change the MOT requirement for Class 7 vehicles. A spokesperson added: "We are aware of these concerns and expect all operators and drivers to maintain their vehicles appropriately, regardless of when their last MOT test was undertaken. Using a vehicle on the road in an unsafe condition is a criminal offence."

## DISPARITY WITH HGVS

Automotive testing equipment manufacturer Maha UK reinforces the point about regular inspection. Heavy commercial vehicles, which are doing significant amounts of miles, have a brake check every three months, in addition to an annual brake check at the annual MOT.

In contrast, general servicing on a light commercial vehicle (LCV)

may only have minimal maintenance on the brakes, so the first MOT test has the potential for failure because maintenance of the brake system could have been neglected.

A spokesperson said: "If you imagine someone who's driving in excess of 80,000 miles a year in an LCV, there's a lot of scope for the brake system to go wrong if it's not maintained regularly or correctly. There's no mandated brake testing on that vehicle other than the annual MOT test, so that's a lot of miles for important components to potentially wear and deteriorate." Maha recently supplied Class 7 equipment including a brake tester for South Street Motors in Somerset (below). Other suppliers include Totalkare (other images) and VLT (see p23).

"The MOT brake test involves testing the maximum force of each wheel and the imbalance across each axle, the rate of increase/decrease, bind, judder and grab, so it's a thorough test, but may not be regular enough," added Maha's spokesperson.

Maha explains that the margin for pass or fail for N1 Class 4 light goods vehicles is a minimum 50% service brake efficiency over all axles and 16% parking brake efficiency. If a vehicle weighs two tonnes, for example, it must have a minimum of 1,000kg total service brake force to pass. However, if more than half the wheels lock on any given brake type,



***“I’d urge any operators to take the MOT issue seriously, and know that VW and our Van Centres are here to work with them to keep their vehicles safe and their businesses on the road”***

James Allitt



then the vehicle will be seen to have met the requirements.

On a Class 7 LCV, brake efficiency is calculated over the gross weight. Testers will be looking for a braking efficiency more easily achieved by a laden vehicle; however, it can (and more likely will) pass on locks - this may cause uncertainty with brake performance while the vehicle is loaded, but unfortunately is quite often unavoidable. With Class 7 LCVs, it is best testing one wheel at a time. This means that higher efficiencies are generally achieved, as the likelihood of the vehicle leaving the rollers is reduced and premature wheel locking is avoided.

**INSIGHTS**

Steve McQuillan, head of central operations at ATS Euromaster, provides further insight into why so many large vans fail their first MOT. He explains: “It is in the interests of your business to do everything you can to ensure the van passes its MOT. Along with your tyres, your brakes are the most safety-critical components of all, and they must work properly to pass the MOT. Fortunately, brake-related faults are fairly easy to spot: grinding or screeching signals that the pads are wearing thin, while if your van veers to one side as you brake, it could mean a malfunctioning calliper. These can easily be fixed before the MOT. Be sure to check the handbrake before the test, too: stop on an incline and apply the handbrake to ensure it holds your vehicle still.

“Generally, 3.0 to 3.5-tonne vans are real workhorses... so naturally will be subjected to more wear and tear. But also a lack of maintenance and pride taken to care for company vans by drivers can exacerbate the problem.

“We also find that as modern vehicles generally have higher mileage service intervals, 20-30,000 in some cases, this means inspection may not take place until components are worn out or then failed on MOT.



“Additionally, overloading and the weight carried in the vehicles will cause excess further wear, especially under braking. This can lead to broken ABS, worn warning wires and even handbrake cables being snapped.

“Our technicians also report load compensator valves sticking or failing, with vans being loaded to the max all the time and then often presented for test unladen. Tipper vans can suffer from callipers becoming caked in mud and clay as a result of site use.

“Many vehicles fail an MOT test for small issues, which could easily be prevented before the test. So it’s a good idea to prepare an MOT checklist a couple of weeks before the date of inspection to make sure your vehicle

is in the best possible condition it can be; this will allow you to proactively fix the issues and avoid any inconvenient circumstances if the vehicle fails the test.” He adds that ATS Euromaster offers free visual brake inspections at centres.

Volkswagen Commercial Vehicles’ head of aftersales, James Allitt, agrees that many vans are failing the MOT with simple maintenance issues that would be picked up by regular servicing. He advises operators to consider servicing packages, which he says take the hassle and stress out of regular commercial vehicle maintenance. The OEM offers mobile service clinics to support busy fleets, supported by skilled staff who are said to understand the needs of LCV drivers and owners. [TE](#)



**OPINION**

Stricter regulation of this class of vehicle is probably the answer to MOT first-time failure rates. But given DfT’s reluctance to act, vehicle operators must self-impose regular scheduled maintenance on their fleets, rather than settle for the bare minimum - which arguably 45% of van operators seem happy to do, if DVSA’s statistics represent the real-world situation. *- Peter Shakespeare*