



Healthily sceptical workshop managers may be missing some tricks, as new equipment enables better, faster truck and van maintenance. Brian Tinham reports

Nothing – apart perhaps from the diagnostic equipment – has changed significantly in workshop equipment technology for the last 20 years, right? Lifts are lifts are lifts; pits are pits are pits; and pneumatic nut runners and the rest are all the same, too. So a transport engineer doesn't need to invest in replacing kit that's still working, right? Well, not quite.

That may well be the view among the vast majority of workshop supervisors, but the fact is there have been developments – and some of these can, and do, make a considerable difference, not only to the ease of performing certain jobs, but also the time taken, the resulting quality of the job and its cost. And that, in turn, may well mean better opportunities for profit and for improving customer service. Both of which matter a great deal and materially change the debate over whether to upgrade or not.

Take the old lifts versus pits debate. Prefabricated steel pits have been seen as the Rolls-Royce of inspection installations for years – certainly ahead of lifts, whatever the type – for all sorts of reasons, not least speed of service and safety. But what about recessed, in-ground commercial vehicle column lifts? Yes, they're slightly more expensive even than a premium quality pit (circa £27,000, instead of around £24,000 for a pit – although that doesn't include the extras). But there are then advantages, as Kevin Howard, sales manager at Liftmaster Garage Equipment, explains.

“One of the main advantages of in-ground lifts is that, as most truck and bus work involves brakes and axles, you can work around them at ground level, without restrictions and without having to use bottle jacks, pit jacks, and safety props over the pit, before you can work. So workshops can save a great deal of time over the course of a year. Also, you don't need dedicated workshop equipment, as you do for a pit – you can just use the regular air supply, the LEV [local exhaust ventilation], oil dispensers, oil recovery etc,” he says.

Uplifting

And in-ground lifts are also now easier to use. “On modern equipment, the first post is fixed and then the second one is moveable via a remote control. So you just have to drive in until you feel the front column under the wheels. Then the second post slides back until it is under the rear axle. As soon as you’ve done that once, the system records the position for that truck manufacturer and type, so that next time, you just tap in the code and it sets up the second post automatically. Then, at the touch of a button, it’s in the air and you can get the wheels off straight away,” explains Howard.

And they’re not just restricted to two axles: these lifts come with up to four posts, making them perfectly capable of handling “complete artics or bendy buses”. He also emphasises that in-ground lifts should not be confused with mobile column lifts that lift under the wheels. “Those are fine for flexibility in service bays, but you’re back to the restrictions: once you’ve lifted the vehicle, if you need to access the wheels, brakes or suspension, you’ve got to bring in axle stands. Modern in-ground commercial vehicle lifts have built-in safety systems that work without propping anything up.”

Scary sight

Howard’s view: “We have a pit culture for HGV servicing and I understand why: when you see a large commercial vehicle on one of these for the first time, it does make you a bit wary. But you just need to start working with them to see how safe and useful they are. If you want to remove an axle, for example, you can just wheel a framework under the truck or trailer and then move it from under the vehicle on one of the lifting posts. Also, because the post has memorised where it was, once you’ve done your work on the axle, you can send it back up in the same position.

“I am not suggesting that everyone goes out and replaces their existing pits, but, where there is the space, it makes a lot of sense to have both – particularly with the announcement of the new ATF [authorised testing facilities] contracts. Independents and operators with in-house maintenance should be thinking about whether to extend their range of services.”

The mention of ATFs leads to another useful development. If you are thinking about going the ATF route, then you also need to know that, a few months ago, tachograph specialist VDO and brake testing equipment firm BM started building VOSA-approved combined brake and tachograph testing systems. Jason Kaieries, product manager at VDO, makes the point that the new equipment saves space and cost – since workshops now only need one lane, rather than two.

“The equipment is for any class of van, truck or car, and it links to the VOSA database for pass and fail reports. Garages can fit the equipment, even if they’re not a DP [designated premises] or ATF lane, so that they can check the brakes and tachograph pre-MOT. Also, in the last couple of months, our latest CTC 2 compact test computer has been approved on the tachograph side. That uses Bluetooth, so there are no trailing cables and the tester can sit in the vehicle, cable-free, to carry out all the tests.”

For the record, the cost saving of the combination rolling road is approximately £15,000, based on separate brake testers and tachograph rolling roads being priced at around £35,000 and £25,000 respectively. Kaieries explains that the rollers have been designed to run free, to accommodate the 50km/h tachograph test, but also to provide drive at 3km/h for the braking test. Existing rolling roads can be converted, he advises – and again, it’s another opportunity to offer an additional service, rather than having to send a truck to another garage.

Incidentally, returning to mobile lifts, it’s worth noting that these, too, are increasingly becoming available as wireless equipment. Somers Total Care, for example, which has been selling heavy duty mobile vehicle lifts for more than 30 years, is now offering cable-free units, with four columns running from a battery under WiFi control. “They’re very good in some environments, where the cables on conventional mobile lifts could be a health and safety trip hazard or be susceptible to damage,” comments Tim Jackson, managing director of Somers Total Care. “They’re also ideal where three-phase isn’t available to operate the lifts,” he adds.



There have been many recent developments in wheel alignment, disc skimming and rolling roads

equipment

Training matters

Training is not just something for apprentice technicians, but everyone involved with vehicle maintenance. Independent diagnostics equipment manufacturer Texa reports several aspects of vehicle testing that need help – and workshop equipment and practice also need updating, particularly as new equipment is introduced.

“One of the biggest issues is that so many technicians were trained as mechanics, but now everything has got electronics built into it,” says Steve Ball, Texa technical trainer. “They don’t understand, so they depend on the diagnostics, but then forget the basics – that vehicle equipment needs power, earth and control signals. Also, warning lights on the dash don’t necessarily mean component failure. It could be something simple.

“For example, maybe they see a turbo leak error code; many will fit a new pressure sensor, without even checking for a split pipe. The other week, I saw a lad who had replaced £1,500 worth of trailer ECUs, which turned out to be just a power supply problem. He hadn’t used a multimeter, even though a big part of technician training should be accurate use of a multimeter. How can anyone test a circuit, if they don’t know what they’re doing?”

But there can be even more costly problems with mechanical equipment. Tim Jackson, managing director of Somers Total Care, warns that on his company’s lift range alone there have been five generations of equipment – and technicians must be certified for health and safety purposes to each one they use. “On older models, for example, if a problem arose, there was an override. But technicians were using them when they shouldn’t. So now they should know to engage ‘safe mode’ to protect the operator and the equipment.”

He also reminds technicians to check manufacturers’ operating recommendations where health and safety are concerned – and not to rely on six-monthly inspections, but to run a daily full stroke and weekly inspection and maintenance. And it’s the same with locking collars on screw-threaded rams and locking devices on vertical transmission jacks.

As Mike Selby, retired sales director with Major Lift Hydraulic Equipment, says: “People get complacent.”

And, with today’s batteries able to cope with 15–20 lifts between charges, subject to vehicle weight, they remove the last restriction of mobile lifts.

But new and improved equipment isn’t just restricted to the big ticket items: disc brake lathes, wheel alignment equipment and even the humble hub puller are just some of the equipment types that have seen significant advances. And all of these are not just ‘nice to haves’, but serious developments that can save workshops and customers time and money – and deliver a better maintenance result.

Looking at brake lathes, for example, Peter Spraggs, managing director of Procut, says: “What sickens me is seeing so many perfectly serviceable discs just thrown away. Discs may look worn, yet still have plenty of thickness, and, with modern on-wheel skimming equipment, workshops can make just as much money by re-facing discs as they can putting on new ones. It’s far quicker, customers pay less, so they don’t feel ripped off and there is the environmental value of, say, 40–60,000 more miles of disc service on a truck, without the energy penalty of new discs at around £100 a pair.”

But that is not the only factor surrounding the discs. There is also the advantage of preventing run-out (particularly on LCVs) and the resulting judder, which can occur even with new discs, if hubs have taken a beating and pads aren’t changed. “Skimming discs with our equipment is

automatic and takes just 40 minutes per axle – roughly the time it takes to get the wheels off. Compare that to the one and a half or three hours for fitting new discs, and the hassle of dismantling and removing callipers etc,” he insists.

Spraggs believes that less than 1% of workshops have on-wheel brake lathes – mostly it’s just medium-sized truck fleets and local councils with a wide mix of vehicles, from gritters to minibuses, that still run their own R&M workshops. Yet at £7,500 for the equipment, these establishments are saving the cost in a matter of months. But if you would rather carry on just replacing discs, be warned: Procut intends to extend its existing website (www.skimmydiscs.com), which currently tells drivers of cars and vans, up to 3.5 tonnes gvw, where they will find the nearest garage that has on-wheel brake skimming machines. Within the next few months, the service will also cover HGV workshops.

Wheel alignment

What about wheel alignment equipment? Spraggs’ company also sells the Haweka range of laser-based kit and our man points out that, as with so much garage equipment, the devil is in the detail. “Ours have several benefits: such as the fact that the lasers mount on the flat face of a steel wheel [grab arms grip the tyre on alloys], rather than the rim, so there is no run-out adjustment involving rotating the wheels etc. Secondly, the vehicle sits on 10 tonne capacity turning plates – so the steering wheels can be rotated freely and trucks don’t need to be jacked up.

“Thirdly, tracking is measured with reference to the vehicle chassis, using toe scales [back and front of the vehicle], allowing technicians to adjust the linkage using a laser dot. Fourthly, the equipment incorporates an inclinometer to measure camber and kingpin inclination angle. It also covers the rear wheels as well – for example, on tractor units, to establish if the axle is out of square and to reveal accident damage.”

Looking at the price, he says that the smallest kit, costing around £3,000, is aimed at tractors, whereas the top of the range machine, which costs £17,000, includes Bluetooth and cameras for hard core usage. “Most of the equipment we sell is around the £6,000 mark for general LCV/HGV purposes.” It sounds a lot, but Spraggs reminds us of the DfT (Department For Transport) website, which provides useful independent guides to the likely cost penalties of poor alignment.

“A one degree misalignment of one axle can increase fuel usage on an HGV by 5% – and we regularly see at least that, due to minor accidents or hitting obstacles that drivers don’t report. But also a half degree misalignment can reduce tyre life by up to 50%,” he warns. **TE**

Workshops don’t have to upgrade equipment, but it can bring benefits

