

To ensure that vehicles are serviced and repaired as quickly and efficiently as possible, workshop managers need to be up to speed on new technologies and systems. John Challen reports



# Getting to grips with diagnostics

It is easy to understand why technicians and their managers may be keen to stick with tried and tested methods, equipment and systems when it comes to maintaining commercial vehicles – even in the face of more advanced alternative technologies. However, sometimes it is hard to argue with the potential for improvements and time saving that keeping a closer electronic eye on your fleet can bring – and that includes using advanced diagnostics, but also some of the newer remote online services.

Workshops are being encouraged to invest in new test equipment for both routine maintenance and fault-finding – the goal being to ensure that vehicles are back on the road, properly repaired, at the earliest opportunity. In a sense, there's little choice: their sheer scale of electronics makes it all but impossible to work on commercial vehicles without the latest diagnostics. However, with that electronics comes a wealth of data.

"We now live in a 'big data' world, where you need to be connected constantly," muses Paul Clarke, managing director of Truckfile, who foresees further big changes in the way vehicles of the future are likely to be serviced. "This scenario has created an enormous amount of data, but we don't really

know how to handle or use it all yet. For example, you may have a large amount of data from a truck that tells you how it is being driven. But how would you know which data to use to help decrease fuel consumption? It's a simple question with a much more complicated answer."

## Question engine

It's a similar story with vehicle maintenance records. How do you keep on top of them? Just as important, how might you unlock the information they hold that could reveal trends that, in turn, suggest ways to make improvements – for the vehicle, its driver and the workshop? Truckfile's Internet-based scheduling system, also called Truckfile, stores millions of records for its 12,000 users, all of whom can access that information 24/7. What's more, the system can be used to upload any type or quantity of data, storing it securely so that it can only be accessed by authorised users.

"We have now created a 'question engine' as part of the system, so that our users can customise any form or document they need – for compliance, for example – and use it as an electronic form," explains Clarke. That can make a difference to all

sorts of aspects, including how vehicles are processed through the workshop, as user Bibby Commercials – which counts Stobart's, Ryder, Dawson Rentals and DHL among its customers – recently found.

“Our customers wanted the ability to see what work we had done to their vehicles as soon as possible,” states Lee Henrys, Bibby Commercials’ service manager. “Specifically, we found that many vehicle hire companies wanted this information, so they could pass it on to their customers. That’s when we started to look into Truckfile.”

Henrys says, while Bibby Commercials is only using certain modules of the Truckfile system (“It does more than we wanted it to, or thought it could do”), it is the most versatile of the systems the organisation trialled. “We needed a system that provides online or electronic service sheets, and Truckfile offers both of these,” he says, adding that details, and in particular the customer experience, have been improved. “We don’t have dirty service sheets any more: everything is clean, as well as clear. The customer can see what action is required on a vehicle in the workshop, or if it has now been passed roadworthy. The application of these management programs has helped improve customer confidence in us as an organisation.”

That’s important for an independent repairer like Bibby. “We have always invested heavily in technology. We believe we need to keep abreast of it to compete with main dealers. Things move on so quickly and we don’t want to be left behind,” explains Henrys. “The fact, for example, that Truckfile is capable of sending emails to customers, with reminders of when they need to come to us, makes it hard for them to miss inspections. This messaging service alone allows us to do all that can be done to ensure our customers’ fleets are maintained to the best possible standards, keeping strictly to the required service intervals.”

### Dealing with diagnostics

Returning, though, to vehicle data, complexity is another key issue for all of today’s workshops. Training technicians to understand the detail, interactions and failure modes of ECUs, modern safety systems etc provides a sound foundation. But, increasingly, even the best now need external advice from time to time.

For situations such as this, equipment suppliers are starting to provide remote online services, not just telephone help desks. Brakes and suspension systems developer Haldex is one such, with its Remote Service. Its web-based offering was designed to support technicians and workshop operatives working with its equipment on vehicles in for repair. Because the system is Internet-based, the company argues that thorny system problems can be solved much more efficiently.

Simply by connecting the workshop computer to the vehicle’s electronics, Haldex experts in their remote locations are able to ‘see’ any problems and advise technicians on the courses of action to take. Haldex says this approach saves time otherwise spent on the phone to a manufacturer support line – leading to cost savings but also efficiency improvements through faster, right-first-time problem resolution.

In addition, the firm’s Remote Service enables a workshop’s Haldex diagnostic systems to be instantly upgraded online. This ensures that the latest software version is being used all the time, so reducing the risk of unresolved problems with brake or suspension systems, leading to delays during servicing.

Much the same is increasingly true of other complex vehicle equipment suppliers – and diagnostic systems themselves are also becoming smarter. Diagnostic equipment specialist Texa, for example, says its latest tool Axone Truck Service (ATS) has been designed “to provide a simple tool for everyday vehicle service and maintenance work”.

So its another development of the firm’s diagnostics range, right? Not quite: ATS differs from its current range of tools, in terms not only of its hardware and software, but also its scope of functionality. The vehicle-check function, for instance, allows technicians to scan all of a vehicle’s electronic systems for fault codes during a routine service – ensuring that buried problems, which might previously have gone undetected, are found and identified while the vehicle is still in the workshop, rather than too late when it has broken down at the roadside.

The ATS handheld communicates via a direct connection to the vehicle’s diagnostic socket, working with Texa’s IDC4 Truck Service software, and has been designed to allow technicians to access functions simply. The device can undertake procedures such as: a vehicle check-up (by scanning the ECUs, reading errors and clearing stored errors); a maintenance service reset (covering oil change, brake reset, air dryer cartridge replacement etc); and clutch initialisation, injector coding, and suspension calibration.

Incidentally, an additional feature of ATS is its vehicle service information, which provides technicians with instant access to service sheets and technical information – for example, torques, lubricant types and filling capacities etc, as well as wheel alignment.

Sounds impressive? There’s no getting away from it. Vehicle electronics is only going one way, and that’s up. So, working with systems – both on and off trucks, buses and vans – is going to demand smarter and better systems, if we’re to get the best out of the assets concerned. And that includes the workshops themselves. **TE**

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