

# DIY diagnostics

Torn between going to a main dealer for repair and maintenance work or keeping it in-house? Dan Gilkes looks into some of the pros and cons

Perhaps unsurprisingly, an increasing number of haulage companies prefer to let the manufacturer's dealer network carry out the majority of repair and maintenance work on their vehicles, rather than have the responsibility themselves. Indeed, in many contract leasing deals, R&M is tied in as part of the agreement. However, for a number of reasons, there are still companies that prefer to look after their own trucks.

For some operators, the decision might be due to the distance to their nearest dealer and downtime caused by a breakdown. Others simply choose to keep maintenance in-house and make use of existing workshop facilities and trained technicians.

There is another point, though: in recent years, it has become more difficult for customers to work on their own trucks, not least because of emissions legislation, and the increasing complexity of engine

and transmission management systems. As a consequence, more often than not, the first point of maintenance reference is now a computer, rather than a spanner.

Accessing the information locked within a given truck's many computer systems is not always easy and, in most cases, specific software that can communicate with the vehicle's electronic control units is required. Once in the system, however, diagnosis can be rapid and effective, reducing downtime and getting the truck back on the road at the earliest opportunity.

The introduction of the EC Block Exemption Regulation a few years ago had a number of effects on the repair and maintenance of all vehicles. As well as allowing customers to have their fleets serviced outside the manufacturer's authorised dealer network, without affecting warranties, the regulation also meant that

The laptop has fast become an important and often vital part of the technician's toolkit



**Diagnostics has helped realise an increase in inspection rates**

prevent corruption of the MAN program. Rental charges for MANcats are around £300 a month, with additional charges for training.

Prices also vary considerably across the truck manufacturers, as do the terms of deals, but, in every case, doing your own diagnostic work is not exactly a low-cost option and should be carefully considered. While larger fleets may be able to justify the significant investment, few owner-operators are likely to be taking up the offer.

Having said that, for those operators based in remote locations and a long way from a dealer, being able to diagnose a fault – and get the truck up and running rapidly themselves – might make buying into this sort of manufacturer's own diagnostics a viable option, irrespective of fleet size.

### **Indestructible laptop**

For operators with Iveco trucks, the system to go for is the manufacturer's EASY (Electronic Analytical System), which comes as a complete package that includes a virtually indestructible CF19 laptop computer, prepared to the firm's own specification. A communication interface allows the computer to talk with the vehicle through the diagnostic port in the dash. Also, the computer has a Bluetooth capability to relay that information back to computers within the fleet operation.

"As a diagnostic unit, it is exactly the same as the system we supply to our dealers," confirms Iveco's Mark Higham, product support manager for the UK and Ireland.

However, it is worth noting that Iveco – along with most manufacturers – doesn't make the whole system available to customers. In its case, that is because it could also be used to change the mapping and programming that controls parameters such as engine power output, ESP and ABS systems, speed limiters and other safety features. "Our equipment is capable of both diagnostics and programming, but we restrict the programming software to our dealers," advises Higham.

Then again, in theory an operator could simply purchase the software and load it onto his own laptop. However, there have been conflicts with other programs in the past, so Iveco and many others will only provide back-up for the complete package. "You can try it, but, in the event of problems, we won't support it," says Higham. He also points to the company's EASY Multibrand, aimed at operators with a mixed fleet and designed specifically to interface with other makes of truck. However, he concedes that this system will not always work quite as well as a manufacturer's own diagnostic programmes.

As for the price, at around £5,000 the package is a fairly serious investment, so any operator will need to be sure that there is enough benefit to their operation before buying. And the cost doesn't stop

manufacturers were required to make their diagnostic tools and systems more easily available. No longer do you have to go to the dealer to interrogate the truck's ECU; customers can carry out their own diagnostics and repairs, using the same equipment available to the registered dealer.

Most manufacturers offer a software package and, in many cases, the laptop computer to run it on. Some, such as MAN, choose to lease the computer and software to the customer, rather than selling the system in its entirety. In MAN's case, its MANcats software only runs on the dedicated computer supplied as well – and no other software is allowed to be installed, the reason being to



**Training is considered a must for technicians, especially as the systems are constantly revised and improved**

there either. "We then offer an R&M contract at £1,216 a year for four years," confirms Higham. "You can also opt for a fifth year at £1,373 and there is a registration charge of €350."

What that total buys includes everything up to a replacement laptop couriered to your door in the event of a failure, along with periodic DVD updates and access to Iveco's diagnostic website in Turin.

Moving on to DAF, this company also offers its customers a few alternatives when it comes to R&M deals. Its pan-European package comes with a choice of Panasonic Toughbook laptop sizes: the larger CF30 computer and software will set you back a substantial £13,400, with the smaller CF19 not far behind at £11,800. In addition, DAF will charge you €445 per quarter to keep things upgraded and current.

"We sell the entire platform to dealers, customers and third parties," says DAF's after sales services manager Tony Shepherd. "But the majority of sales are to customers that have their own workshops. Some customers are very proactive and they want to do the work themselves."

Scania similarly offers a range of diagnostic tools to suit different levels of requirements – in its case, with a mixed approach to buying and renting. Service operations general manager Tony Tomsett puts it thus: "We have diagnostic equipment that is purchased, but the software is under subscription."

Mercedes-Benz offers its Star machine, a laptop that provides diagnostics, fault code recognition and all the workshop information. In addition, customers and third-party garages can pay to access a workshop information system on the web. "We offer exactly what we offer to our dealer network," says commercial vehicle service quality manager Brian Anderson. The Mercedes system has bi-monthly updates on DVD, but in the future all that will be available online or through wireless communications.

And the list goes on. However, all of the manufacturers agree that electronic diagnostic



equipment can never be regarded as an alternative to well trained technicians. Indeed, without additional training, a diagnostic system can wind up rarely being used.

MAN insists that training is critical and the company normally only supplies its MANcats system once the appropriate training course has been completed. "Truck and bus operators must be prepared to allow, and pay for, initial start-up training and ongoing update training," explains a MAN spokesman. And he warns: "The reality is that most customer MANcats machines gather dust and are rarely used, as a trained technician will only need it for complex diagnostic jobs, while a poorly trained technician will not use it at all."

Iveco offers the same wide range of training courses for customer technicians as it does for its own dealers and Higham advises that any operator or third party garage taking up the diagnostic equipment should participate in this training.

And Scania's Tomsett agrees, adding: "We have quite a few customers who take up the software and training, and you need training to get the best from the system. But don't be over-reliant on software. Physical components can also fail in mechanical ways." A point worth remembering before you order expensive new components, only to find later that a terminal has corroded.

To sum up, there seems little doubt that, for those who prefer or need to carry out their own diagnostic and repair work, manufacturer-supplied diagnostic systems are a boon. However, they are expensive and only as good as the people operating them. For those fleet operators who are considering this type of equipment, manufacturers offer three basic tips.

First, be prepared to invest in technician training, both before you take on the equipment and on an on-going basis, once it is in service. Secondly, ensure that the system is kept up to date with the latest information from the manufacturer. And thirdly, treat a diagnostic system as part of a planned maintenance and repair operation: it is there to supplement the skills of your technicians, not to replace them. **TE**

**Iveco offers a variety of packages to operators for R&M work**

