By using cloud technology, service testers are becoming intelligent and can react dynamically to the relevant particularities of individual vehicles. ***© Softing Automotive***

Long Repair and Downtimes? No Thanks! – Cloud-Aided Diagnostics Brings Process Security and Increases Efficiency

Mobile working machinery is permanently subjected to extreme loads. Use under the most difficult conditions has the greatest influence on the availability of the machinery. When it comes to infrastructure-critical devices, such as fire-fighting vehicles, end-to-end operability is in fact essential. Softing TDX is a holistic solution for after-sales.

Along with electrification, automation and digitalization are the major mega trends in the area of mobile working machinery. These trends are producing vehicle functions that enormously increase efficiency in day-to-day work, but whose complexity makes maintenance and repair extremely difficult. The demand for permanent availability and increased efficiency is absolutely opposed to expensive downtimes and unplanned repairs resulting from complex maintenance and repairs. In the case of critical machines, such as firefighting vehicles, this can even cost lives in a worst case scenario.

This is why it is necessary not only for mobile working machinery to become automated and digital, but also the tools with which such machinery is serviced and repaired.
This consequently means that, in the repair shops and, in particular, in the field, service technicians are always equipped with the suitable service tester without the technicians themselves having to make any great preparation.

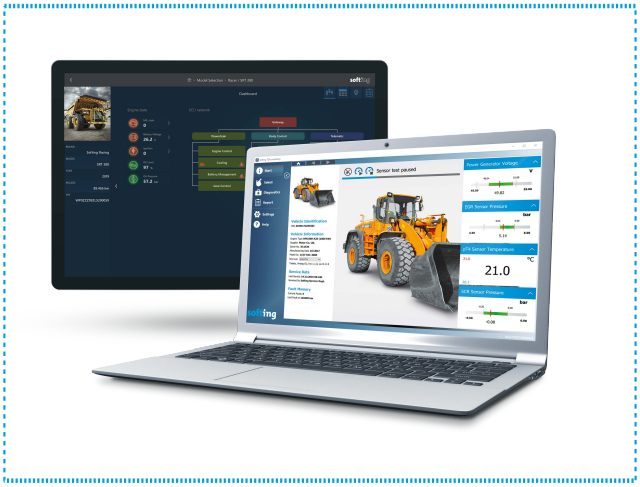

Figure 1: Examples of a service tester on a PC and tablet

The entire repair process can be delayed if just one of these components is missing or if it is not state of the art. It is all the more annoying when valuable repair time is lost because the service technicians on site are not provided with the latest, vehicle-specific diagnostic content. An added complication is that the vehicle-specific data changes over the life cycle and the service tester has to be regularly adapted. Manual preparation for use in the field thus provides many possibilities for errors.

To avoid unnecessary journeys for the service technician, Softing TDX can check the diagnostic content for the respective vehicle and dynamically update the tester if necessary: diagnostic content on demand as it were.

The Cloud Makes the Service Tester Intelligent

As long as the correct data is available for the specific vehicle, there is basically nothing standing in the way of the repair. However, the greatest challenge still remains – constantly incorporating updated service information in the repair process and reacting to unexpected data sets.
The solution is a service tester which becomes an intelligent tester thanks to additional shares in the cloud. It can dynamically respond to the specifics of each vehicle during maintenance or repair work and incorporate additional information from central data sources into the process. The entire vehicle history information in particular plays an important role. To guarantee optimal service on site, the technician has to have access to the relevant information on the vehicle:

- When were specific ECUs exchanged?
- Are there software updates for a specific ECU?
- Was the specified service interval observed?
- Who carried out the maintenance?
- What solution has already been found for a specific problem?

This makes it faster to find and implement a solution to an error, thus significantly reducing the time to repair.

Softing TDX – Toolbox for OEMs for the Independent Creation of Individual Service Tester Solutions

Softing's solution package for after-sales is not an off-the-peg tester but a toolbox with which you can create and maintain individual service tester solutions. It can be scaled to suit requirements and makes a great contribution to increasing efficiency in the mobile working machinery sector. Additional value added is achieved with optimal integration into established processes and the integration of databases and management systems. Thanks to its great flexibility and simple expandability, Softing TDX helps reduce repair times enormously and minimize unnecessary, time-consuming activities for service technicians.

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