




Knowing the
vehicle's condition
anytime, anywhere.

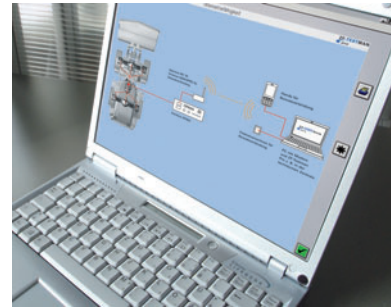
A close-up photograph of a red construction vehicle, likely a bulldozer or similar heavy machinery, positioned on a gravel surface. The focus is on the large, treaded black tires and the red metal components of the machine. A black metal ladder is visible between the two main tires. The ground is composed of light-colored gravel and dirt, with shadows cast by the machine. The overall scene is brightly lit, suggesting an outdoor construction site.

Increase the efficiency of
your construction machinery
with an anticipatory and
clear diagnosis.

Keep your finger on the pulse of the vehicle electronics

In modern driveline systems, an ever increasing number of functions are controlled electronically. System complexity, which in fact increases performance and driving comfort. On the other hand, however, maintenance and fault detection are becoming more and more difficult – without a suitable diagnosis tool. The solution: ZF-Testman Pro.

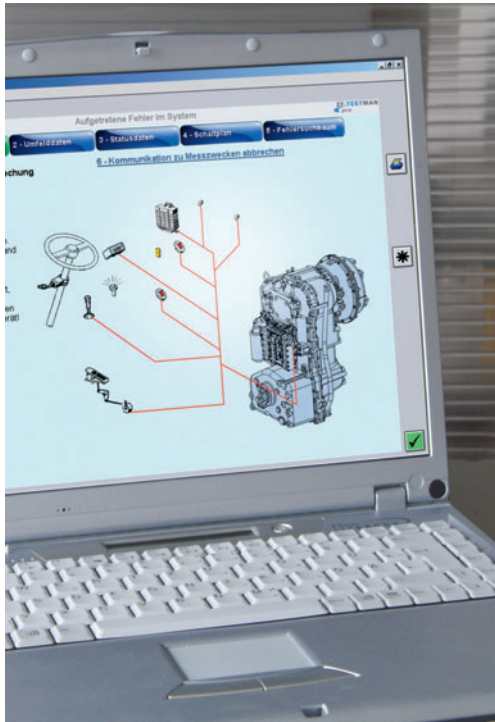
Is everything okay? Answering this question does not require an extended stay in the shop. ZF-Testman Pro checks the functionality of all electronically controlled ZF products by means of telemetry or a notebook, online while driving or when the vehicle is at rest. Thereby a notebook loaded with diagnostic software, is easily connected to the vehicle system electronics via interface. At the push of a button or the click of a mouse, this software will answer all important questions: Are there any problems? Where are they located? How can we correct them? What imminent damage is possible? What improvements can be made to the driving program and driving style to achieve optimum results? ZF-Testman Pro perfectly informs you on your vehicle's condition at any time, which allows quick and specific reaction to problems. It helps save time and money.



The diagnostic package

ZF-Testman Pro avoids:

- Time-consuming fault detection
- Repairs for unspecified reason
- Expensive damage
- Expenditure of time and money



Fault detection – made easy

It's not only the variety of functions that counts. Convenient and easy operation of a diagnostic system is important, in particular when used in a moving construction machinery. Just like ZF-Testman Pro! Thanks to telematics, a ZF specialist is practically available "on the spot".

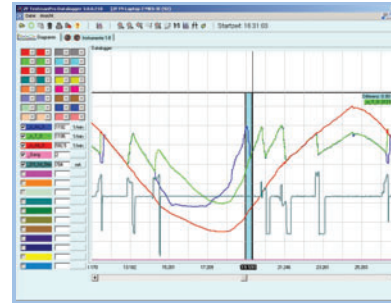
The ZF diagnostic system meets vehicle specifications and customer needs. During installation, you can choose the desired language out of eight: German, English, French, Russian, Italian, Polish, Portuguese or Spanish. A clear design of the user interface and the guided fault diagnosis process enables you to operate the system safely within shortest time. The technical prerequisites for a telemetric interference provided, it is also possible at any time to call-in ZF technicians online, if required. ZF-Testman pro is available in a stand-alone version. Fleet owners and vehicle manufacturers will be provided with multistation versions customized to their service departments. Regular updates ensure effectiveness.

The quickest route to a result

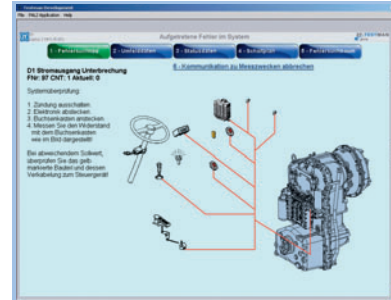
Where is the problem? In the transmission system? In the engine electronics? Maintenance does not leave much time for guesswork. A construction vehicle needs to be back in operation as soon as possible. The advantage of ZF-Testman Pro: it offers a fast and accurate fault diagnosis – even from afar.

Software features

- Suited for standard laptops or PC
- Easy and menu-guided operation
- Diagnosis during standstill or driving
- Checking of all input and output signals
- Fault memory with repair information
- Display and evaluation of statistical data
- Vehicle parameterization via diagnosis interface
- Programming of transmission electronics possible
- Data recording with integrated Datalogger
- Integrated transmission documentation (e.g. transmission repair manual)
- Worldwide phone directory of the ZF service network
- Telemetric data transfer – the most efficient diagnosis method

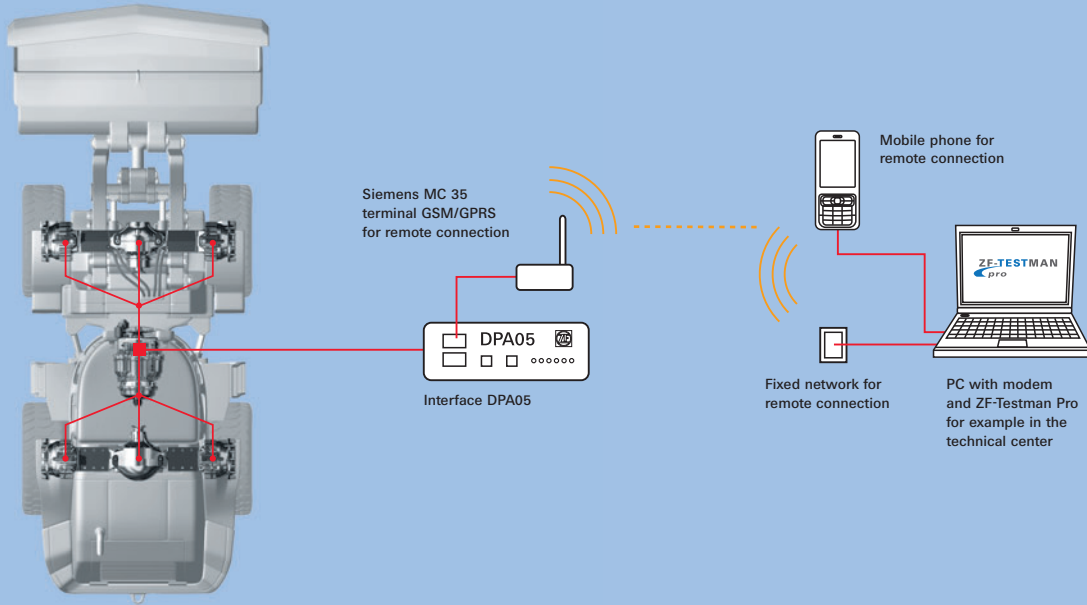


ZF-Datalogger



Error display with repair information

Chart of telemetric diagnosis



Connection principle ZF diagnosis system

The interface module DPA05 serves as an interface between the vehicle electronic system and the outside world. A laptop with the ZF Testman Pro diagnosis software can be directly connected to it.

During operation, the vehicle can be monitored via telemetry. A GSM-Transmitter or a mobile phone transmits the data via cellular phone system to any remote station desired, which is equipped with a modem and cellular phone connection or phone connection. This allows a specific diagnosis check or a permanent automatic reporting.

Telemetry always provides ZF competence on the spot.

The vehicle is on the road in some remote corner? A simple call is all it takes! With telemetry the vehicle diagnosis is performed particularly efficiently. The test data is transmitted in real time during operation.



Telemetry configuration

- Interface module DPA05 with cables
- Siemens MC 35 terminal GSM/GPRS
- Diagnosis software ZF-Testman Pro

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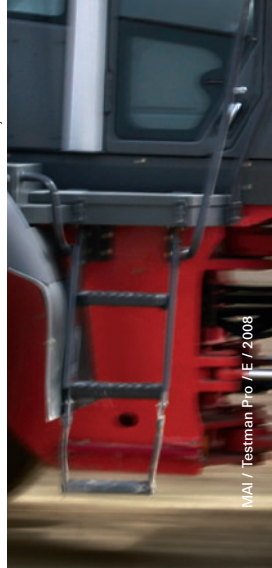
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Driveline and Chassis Technology

Products and technical data subject to modification.



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