



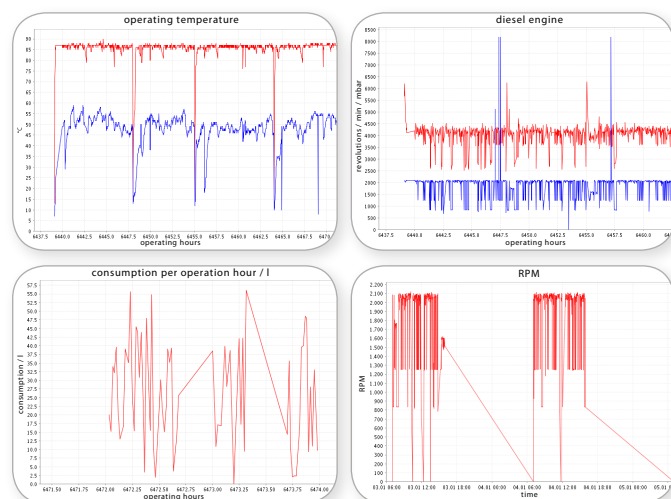
## Manufacturers of Construction Machinery

Mobile data collection for machinery in the construction industry

### Do you know the status of your construction equipment before your customers call?

Having a customer-focused approach is the key to a successful business. The manufacturer of construction equipment is subject to the interests and requirements of your customers. What do they require in addition to the best excavators, vibrating plate compactors, compressors, and other equipment?

Certainly, your customers expect the equipment to be fully operational at all times. A service and maintenance package that has remote access to valuable information and data about your equipment: hours of operation, battery stats, maintenance intervals, and error logs, should be a major component of your product line. These things are important to avoid the additional costs of sending a service team to a distant construction equipment site. Your customers will certainly appreciate the efficiency of your construction equipment, service and maintenance department.



## ENAIKOON Telematics Solution Features

### Hours of operation and other equipment information

- detailed display and immediate availability of all information:
  - equipment data / hours of operation / CAN bus data
  - fuel consumption / battery status
  - monitoring of service maintenance dates

### Detailed analysis and remote diagnosis

- analysis of handling / utilisation via CAN bus
- ratio of idling to load operation
- evaluation with customer regarding utilisation and capacity
- utilization analysis of equipment with different drivers
- remote diagnosis maintenance and repair requirements possible
- remote maintenance to significantly reduce expensive and unnecessary dispatch of service engineers

### Threshold monitoring

- configuration of various alarm profiles for different machines
- set different thresholds for battery status, hours of operation, certification, maintenance dates, oil temperature, pressure, etc.
- different alert levels: pre-alert, main, and chief
- early warnings reduces downtime, minimizes costs, ensures plan certainty, optimises spare part ordering

### Remote control and configuration

- activation or deactivation of each individual machine
- immobilizer and remote shutdown prevent unauthorised use
- remote shutdown for critical operating states

## What can ENAIKOON telematics solutions offer your customers?

All the features listed that are important to your customers, are also important to construction companies and construction equipment leasing companies. The advantages of having a telematics system are:

- GPS positioning
- remote shutdown
- restrictions on equipment use (place and time)
- employee monitoring
- anti-theft system
- use of Geofence

### VDBUM: Concerning the use of telematics with construction machinery

VDBUM is a German association of engineers that was established in 2009 and is made up of a working group of managers from leading construction companies in Germany. Requirements for construction equipment manufacturers were collected and were presented in subsequent meetings.

While anti-theft systems became an important criterion, it was also important, in terms of optimization, to permanently collect important machine data and to evaluate this, using appropriate IT solutions. A common goal was agreed upon, that all manufacturers should install a standard interface in all equipment, with identical data formats for easier data evaluation. It was also agreed upon, that scheduling data and logistical characteristics should also be provided, for better evaluation. The commercial vehicles sector serves as a model, since the large players in this industry are pursuing standardization and supplying of required data via a common interface.

VDBUM welcomes the fact that ENAIKOON actively supports this project.

## ENAIKOON's Telematics Overview

- offering a large selection of different telematics modules, creating customised solutions for almost any possible application
- wireless communication in real-time so you always know what's going on
- powerful and secure web-based solution with:
  - no software installation required
  - data retrieval via any web browser or on your mobile phone
- automatic e-mail and text message reports for ease-of-use
- evaluations put you in the know: driver log-book, daily and weekly reports about individual drivers or equipment, break times, and speed profiles

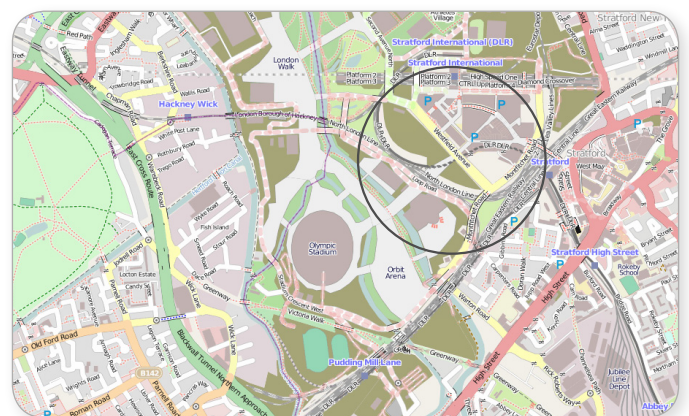
## Easy-To-Use Technology

- installation of the device within minutes
- maintenance-free operation with detailed manual
- hotline with local call charges

## Secure equipment and cost centre allocation

A geofence is a "virtual electronic fence" around a construction machine or site. You receive a fully automated e-mail or a text message (SMS), when deviations from the plan are detected. This keeps you up-to-date and allows you to rapidly initiate appropriate measures.

Thanks to geofence, each building site can be given a cost centre number, or another designation, which is then included in all reports automatically.



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