



Customer

Network Rail
(www.networkrail.co.uk)

Country

United Kingdom

Location

West Coast Main Line

Delivery date

December 2008

Project summary

Condition monitoring of:

- 600 Point machines
- Wireless communication
- Real-time access to the information by web interfacing
- XML ready
- Installation of hardware and software
- Commissioning and testing
- Maintenance consultancy

POSS West Coast Main Line

The West Coast Main Line is the busy 401-mile (645-km) long mixed traffic railway line connecting London Euston Station to Glasgow Central.

The modernisation of the line was finished December 2008 after almost 10 years of considerable engineering work. The tilting Pendolino trains of Virgin can now travel with 125Mph (200 kmh). The passenger train services could be intensified and the West Coast Main Line is now one of the busiest freight routes in Europe.

Obviously, the availability of the line is crucial for uninterrupted train services. Therefore Network Rail decided to equip the most critical points with Point Condition Monitoring. A test at Ledburn Junction in February 2008 showed the high performance of the POSS point condition monitoring system.

The contract for POSS on the West Coast Main Line was signed in June 2008.



Strukton
Systems

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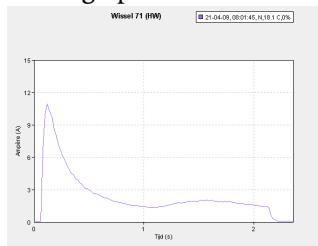
www.networkrail.co.uk

The following point machines are used on the West Coast Main Line:

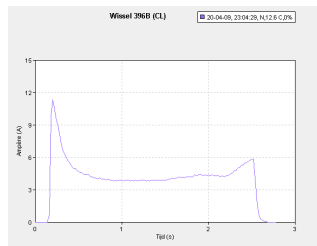
- Electro mechanical: HW and type 63
- Electro hydraulic: Clamp lock and Hidrive
- Solid state controlled: HPSS

POSS sends its measuring data via GPRS to the POSS server in the Netherlands. The Network Rail engineers have real-time access to the data via a web interface on their PC or mobile devices.

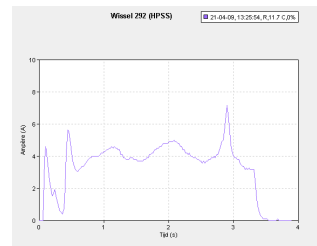
Typical POSS graphs:



HW



Clamp Lock



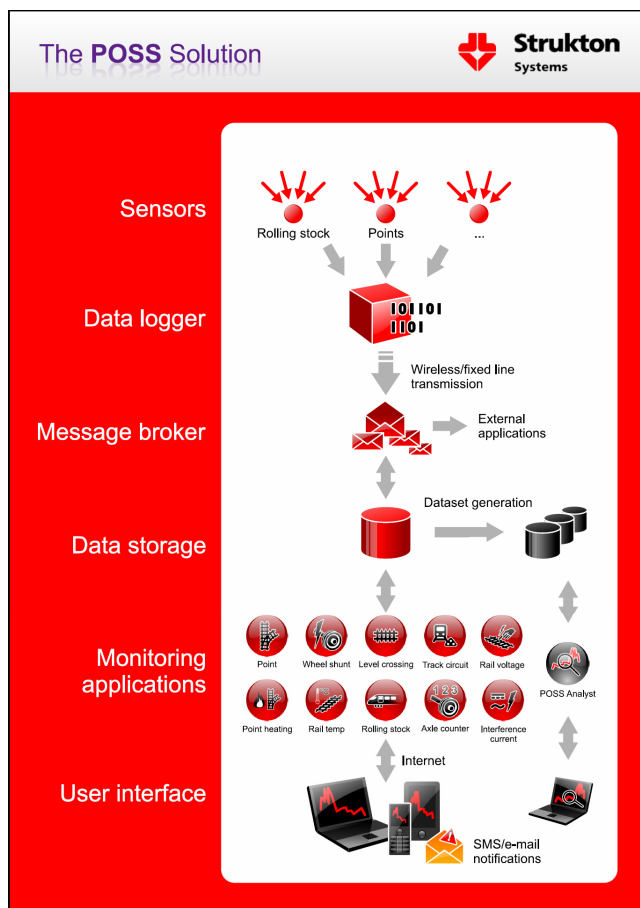
HPSS

A Micro POSS unit has been installed in all line side cabinets controlling the critical points. This unit is powered by the signalling power supply over an isolation transformer. The measuring data is transmitted through a small GPRS antenna. The POSS system is proven non-intrusive.

After installing the Micro POSS unit and setting the right parameters by the system engineer, the Point Condition Monitoring is operational. This takes no longer than a couple of hours.



Micro POSS unit



The simplicity, the effectiveness and the fact that all the installation work could be done by Network Rail staff, were the main reasons for Network Rail to choose for POSS condition monitoring for the West Coast Main Line.

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