



System installed in 1997 for CAN (UK) Ltd / Network Rail

The Forth Bridge, completed in 1891, is one of the great Victorian engineering landmarks. It forms an important link in the railway infrastructure, carrying some 200 trains every day. As part of a major refurbishment scheme, features are being provided to reduce the need for maintenance personnel to enter the hazardous environment on the bridge. A number of old mechanical movement gauges are located at various positions on the bridge, however, these needed to be read individually on a daily basis.

The Strainstall system allows remote monitoring of cantilever end roller bearing movements and approach span sliding bearing movements. At a connection between the central tower cantilever and one of the suspended spans, longitudinal, vertical and transverse movements and rotation about three axes are instrumented.

The benefits of the system are:

- Enables extensive range of structural movement to be monitored.
- Client has remote access to information via modem connection.
- Allows temperature related/seasonal effects to be plotted.
- Provides data for loading assessment of bridge.
- Specially designed durable fitting using materials suitable for the required working life.

- Networked Data Loggers with Modem
- Linear Displacement Transducers
- Rotational Potentiometers
- Inclinometers
- Temperature Sensors
- Crack Meters
- One Hourly Readings Stored in Memory
- Real Time Filtering to Eliminate Live Load Effects

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