

INSTRUMENTATION

OVERVIEW

The BHP Institute of Railway Technology has significant experience in the installation of in-line monitoring systems for trains, stackers, reclaimers, bulk ore carriers, draglines, coal trucks and shovels.

Systems for measuring –

- strain,
- deflection,
- acceleration (vibration),
- noise,
- temperature,
- acoustic emission (wear & lubrication),

form the basis of the Institute's instrumentation capability.



PERMANENT INSTALLATIONS

- Partially Dumped Ore Car Detector – in service for last 2 years at BHPIO on the recently completed Car Dumper #3.
- Briquette Feed Bin weigh system – Installed at Hot Briquetted Iron (HBI) plant.
- Wheel Impact Monitoring – Marketed by Teknis Pty. Ltd. and installed at various state rail systems (NSW, SA, Qld) since 1992.
- Peak Load Detector – in service at BHPIO for last 8 years to detect peak loads due to ore-car wheel tread irregularities.

BENEFITS

- Prototyped instrumentation results in optimised final installation.
- Improved maintenance scheduling.
- Improved production audit data.
- Condition monitoring of wheel fleet.
- Improved loading procedures.
- Improved process control.