



Telemetrics

DMI INTERNATIONAL

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We recently posted an [article](#) about the DMI upgrades to the standard 22-36 pipe bending machine. While there were many key upgrades to the hydraulic operating system, there was also a brand new feature that was included in the machine upgrade. That feature was the DMI Telemetric System (DTS)[™].

What Is It

Telemetrics is an automatic measuring system that utilizes transmission of data across the internet and broadband sources in order to monitor equipment remotely. We installed this system on specific benders in order to gain an understanding of how operators use the equipment in the field and as a service tool for the pipe bending machine. The implementation of this system has been quite successful and the information it provides has been very beneficial.

Unlimited Benefits

Many more parameters can be established and monitored depending upon the needs and requirements of those monitoring the bending machine. The list of parameters that can be monitored is unlimited. The data can be used to understand the parameters of the bending method or for notification of the bending operations. Telemetric systems are not new; nor are they new to the pipeline industry. Much of the equipment utilized on the Right Of Way already utilizes this technology. We believe this system will allow us to create a higher level of service to our customers by being proactive rather than reactive to the service needs of the equipment.

DTS Monitoring

From a service perspective, we monitor the [hydraulic oil](#) filter. When the oil filter's dirt holding capacity is reached the electrical indicator on the filter lights up and sends a signal to the gateway in our telemetric panel. From the gateway we receive a signal via email and/or text informing us that the filter needs changed. Our service technician is able to respond to the need and provide the customer with a new filter.

Similarly, one of the most powerful tools of the DTS is the ability to troubleshoot the engine. The DMI system is designed to transmit engine DM1 Fault codes upon diagnosis from the engine. The engine uses a J1939 communication protocol to send messages from sensors to the ECM (Engine Control Module). Our telemetric system reads the Fault codes from the J1939 network and then transmits a notice to a

DMI service technician that the engine is experiencing difficulties. By transmitting the DM1 Fault codes the service tech from DMI or Caterpillar can arrive prepared to the job site to fix the engine. The ability to receive engine data allows us to provide prompt response when the engine requires servicing.

Monitoring System Operation

Additional information is also transmitted from the DMI Telemetric system. Bending pressure, Pin Up pressure, Compressor operating pressure and hydraulic fluid temperature is also available for analysis. All engine data and operating codes transmitting on the J9139 network in the ECM can be monitored.

Our systems are set up to read the Engine torque, and operating speed and coolant temperature. Understanding how the engine responds to the demands of each bending operation provides us with the knowledge to build more efficient equipment and better utilize available horsepower. An additional feature of the system is the GPS location available, but also the GPS tracking history of the machine. For more information on how DTS can benefit your operation, please contact DMI Engineering or your DMI sales person and inquire about our [22-36 Super Elite Pipe Bending Machine](#).

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