



Clamp-on Beam Load Transducer

The clamp-on beam load transducer from Weatherford attaches to the pumping-unit walking beam to provide load data to a rod pump controller (RPC). An enhanced version of the clamp-on transducer is available to acquire both load and position data (see *Specifications*). These highly accurate transducers are compact, enabling them to be easily installed by one person.

The clamp-on transducer is designed to withstand conditions that can damage most RPC load cells or render them useless as a result of pumps sticking, rods floating, and sanding. Because this clamp-on transducer incorporates a standard cable assembly, it can be used as a direct replacement for RPC load cells. Standard features include lightning protection and internal electronics that compensate for variations in ambient temperature. Special aerospace finish and environmental seals make the unit appropriate for long-term use in harsh oilfield environments.

This clamp-on transducer is compatible with all RPC systems.



Features, Advantages and Benefits

- The clamp-on transducer installs easily with an Allen wrench, which reduces installation time and costs by eliminating welding and requirements for “hot work” permits.
- Temperature-compensating electronics and environmental seals make the transducer virtually unaffected by variations in temperature, ensuring reliability in extreme environments.
- The clamp-on transducer can use the same cable as an RPC load cell, reducing installation time.
- The enhanced version of the transducer measures both load and position using only one cable, allowing the transducer to be used as a direct replacement for a load cell and position sensor.
- The clamp-on beam transducer has a higher sensitivity to vibration and pumping unit stress (0 to 3 mV/V) than RPC load cells, providing a more detailed dynamometer card on most wells, resulting in a more accurate analysis of overall well conditions.
- The rugged design of the transducer enables it to withstand conditions that typically damage or nullify most RPC load cells, making it the ideal choice for heavy oil wells that experience problems with rod floating.
- The clamp-on transducer requires calibration only when it is installed and, with no moving parts, it is low-maintenance.
- The transducer installs away from workover crews, preventing the need to reinstall the transducer after workover operations.



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Specifications

Operating range (°F/°C)	-60° to 212° -51° to 100°
Temperature effect on zero (uV/°F)	±0.19
Temperature effect on output (full scale/°F)	±0.0008%
Combined accuracy through temperature range (full scale)	0.5 to 1.0%

Part Number	Description
PC8500-532-04, JDE 912050	Load only
PC8500-532-03, JDE 800249	Load and position

Note: Implementation of new developments and product improvements may result in specification changes.