E-Saximeter

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The essential device for accurate blow counting

Reliable. Accurate. Essential.

The E-Saximeter (E-SAX) is a hand-held instrument registering relevant pile driving parameters, calculating diesel hammer stroke or hammer blows per minute (BPM) for any hammer type.

E-SAX is used by piling inspectors everywhere to generate a complete Pile Driving Log, including:

- Pile name
- Start and stop driving time
- Blow count versus depth
- Blows per minute
- Final equivalent blow count for the last 20 blows
- Stroke of open end diesel hammers
- Potential energy of open end diesel hammers

Blow Count Versus Depth and Time

A sound recognition device detects and counts all hammer blows. Background noise is managed through manual or automatic adjustment of the sound level at which a blow is detected. The E-Sax operator inputs the starting depth and indicates the start of driving via the keypad.

With the press of one button on the E-SAX, the pile depth can be incremented and the total hammer blows logged as a function of pile penetration. The E-SAX computes the quantity Blows per Minute in real time for each hammer blow.

Stroke and Potential Energy

For open end diesel hammers, the E-Saximeter computes stroke from the measured Blows per Minute (BPM). The hammer stroke is then multiplied by ram weight to yield hammer potential energy. These quantities are used to confirm assumptions made when analyzing the pile by the Wave Equation (GRLWEAP Software Program). For hammers other than Open End Diesel, optional accessories allow computation of kinetic energy.

E-SAX/ PDA Correlations

When the E-SAX is correlated with the Pile Driving Analyzer® (PDA), it allows driving criteria to be in terms of hammer energy instead of blows per foot at a certain stroke. The E-SAX can assess the hammer potential and kinetic energy. The PDA calculates the energy actually transferred to the pile.

Optional Enhancements:

Depth Measurement

A depth measurement accessory avoids having an operator enter depth of penetration increment during driving. A depth sensor tracks the movement of the hammer, and a wireless transmitter sends the data to the E-SAX, completely automating the generation of a pile driving log.

Kinetic Energy Measurement

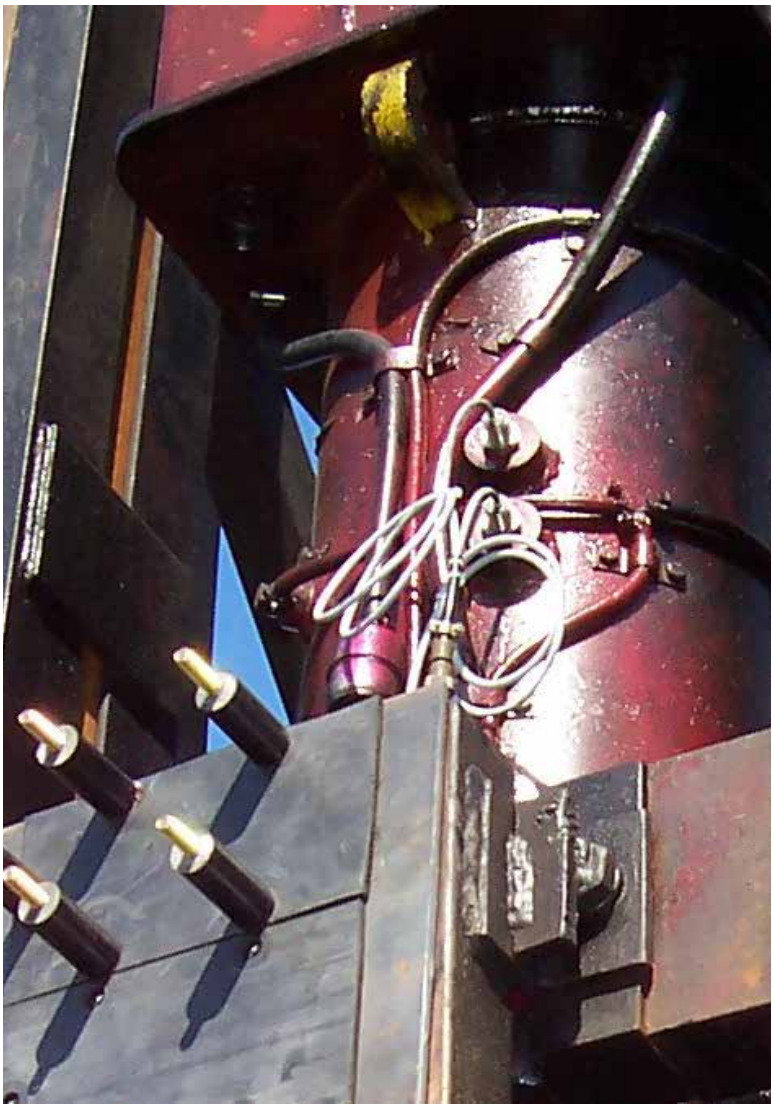
A pair of proximity switches mounted on the hammer detects the ram position at two points, just before ram impact. A wireless transmitter sends this information to the E-Saximeter, which then calculates impact velocity from the time it takes the ram to travel between the two points. The Hammer Kinetic Energy just before impact, a fundamental quantity for those performing Wave Equation analysis of Pile Driving (GRLWEAP software program), is computed from impact velocity.

Maximum Blow Detection Rate:

- 68 bpm for open end diesel hammers
- 300 bpm for all others

The E-Saximeter operates in English or SI units and includes a full one-year warranty.

Pile Dynamics, Inc. (PDI) is the world leader in developing, manufacturing and supplying state of the art QA/QC products and systems for the deep foundations industry. The company is headquartered in Cleveland, Ohio, USA, with offices and representatives worldwide. For additional information visit us at www.pile.com or contact info@pile.com today.



Proximity Switches

- Entirely wireless
- Easy to read digital screen
- USB Computer interface
- Pre-programmed and user programmable hammers