Controlled Sources

The Propelled Energy Generator, model: PEG-40Kg

Currently, the only controlled active source available from PASSCAL is the PEG 40Kg Propelled Energy Generator, manufactured by R.T. Clark Companies, Inc. PASSCAL has purchased its first fully automated PEG-40Kg system in 2011. The system is light weight, and highly portable, and is designed to easily mount onto a truck or SUV hitch. Seismic energy is produced when a large hammer mass weight is propelled by an elastomer band (i.e. a very large rubber band) onto an impact plate, producing an impact frequency range of 10-250Hz. The source is controlled with a hand held motor controller, and can operate in single cycle or continuous cycle mode. The device is powered by a 12V large capacity battery (car battery). The PEG-40Kg was received, assembled, and field-tested by PASSCAL staff on June 23rd-28th, 2011.

Here are all the parts for the Propelled Energy Generator, model: PEG-40Kg.
The PEG-40Kg installed and ready for action.
This data plot shows the imparted force, in pounds, for five thumps of the new device. Here, the Thumper is packing around 25,000 pounds per wallop.

Further Reading:
- PEG 40Kg Propelled Energy Generator, at R.T. Clark Companies, Inc.
- PASSCAL Environmental Testing of Ameraflex Pure Gum Rubber

Videos of the Thumper in Action:

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