

NAVCO® Railcar Vibrators Eliminate Hassles and Reduce Unloading Time

The Problem:

A cement terminal in Minnesota commonly experienced product bridging when unloading railcars. Several approaches were used to promote consistent material flow from the railcars.

The Martin Pocket Rock-It was a marginal solution for breaking bridges that formed in the railcar hopper. This unit seats firmly in the dovetail bracket on the hopper via a male mounting head made of hard composite. The resultant hopper response to the vibrator could not assure the flow of cement. Material, weather, and railcar variables factored in to whether or not cement would flow out of the hoppers without the occurrence of bridging while using the Martin portable hopper vibrator.

A Martin hydraulic rotary vibrator was also clamped to structural frame works on the end of the railcar near the ladder. The intent was to vibrate the entire railcar in order to promote consistent flow. The rotary hydraulic unit is heavy and cumbersome, and requires high maintenance and a hydraulic pumping unit to operate. The hydraulic unit is a high frequency vibrator; it is most effective when operating near the resonance frequencies of the railcar.

The result of this operating mode is railcar damage and complaints from the railcar leasing company regarding the damage were common. Even when used in combination with the Martin Pocket Rock-It, complete, efficient unloading was not guaranteed.

The Solution:

Through the local NAVCO representative, NAVCO was contacted to assist in solving the problem. Unloading at the terminal had come to a standstill due to some very stubborn material and the urgency of the situation was relayed to NAVCO. One NAVCO HCP 3 Long was shipped to the terminal overnight. The NAVCO HCP 3 Long started the cement flowing immediately and effectively maintained constant flow until the car was emptied. The unreliable vibrators were retired, unloading time was reduced, and the cement terminal capacity was increased.



NAVCO HCP Vibrator ensures material flow from rail cars.



The terminal is very satisfied with the results from the NAVCO HCP railcar vibrator. The terminal operators stated that NAVCO HCP portable hopper car vibrators with “free ride” design technology and Teflon coating for harsh environments are the most effective railcar shakers available.

For more information about this or other NAVCO applications please call 800-231-0164 or learn more about NAVCO’s vibratory flow solutions for material handling online at www.navco.org.