

8/5/2004

TO: Everyone unloading railcars

SUBJECT: **EFFICIENCY COMPARISON**

The NAVCO HCP Vibrator



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.

A pocket rocket type vibrator was a marginal solution for breaking bridges that formed in the railcar hopper. The unit seats firmly in the dovetail bracket on the hopper via a male mounting head made of hard composite. The resulting hopper response to the vibrator did 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.

A hydraulic rotary vibrator was also tried. This unit was 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 was heavy and cumbersome, and required 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 pocket rocket, complete, efficient unloading was not always accomplished.



A Hydraulic Rotary Vibrator

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.



The terminal is very satisfied with the results from the NAVCO HCP railcar vibrator. The terminal operators agree 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 vibratory equipment applications please visit our web site www.navco.org or call call 800-231-0164.

APPLICATION UPDATE BULLETIN

Customer Testimonial:

About the NAVCO HCP:

Fred Workman, Distribution Manager of the Lafarge cement terminal in Columbus, OH says:
"We are definitely seeing better unload times from the Navco product. ...they are well balanced and easy to handle. I have already recommended them to several other people."

About the Competitor's railcar vibrator:

The other "silent" pneumatic rotary vibrators he used to use have "very high CFM consumption and needed more air pressure to operate. The Navco *HCP* uses less CFM and pressure. This saves on the cost of making compressed air and the compressor runs at a reduced output ... this saves on energy cost." He says the "other" vibrator also "needed 3/4 inch supply hose that was hard to handle. Navco uses 3/8 inch feed line that is a lot easier to handle."

If you already use NAVCO vibrators please consider recommending us to a peer!



NAVCO also manufactures Railside Car Shakers and Overhead Car Shakers for heavy duty unloading.

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