



MEMO

To: Deep Foundations (BU15) and Marine (BU23)

From: Graham Fruge

Date: 5/4/2022

Re: Expectations for using proper rigging on a vibratory hammer

Purpose

The purpose of this memo is to reduce risk of incidents associated with rigging failures using improper rigging materials on vibratory hammers. With this memo, the crew can select the proper rigging when using a vibratory hammer.

Process

When using a vibratory hammer, it is critical that personnel use the manufacturer recommended rigging to attach the hammer to the crane. Vibratory hammer manufacturers recommend steel wire rope slings when rigging to the crane for any type of activity. Nylon rigging is not recommended because there is no real world way to measure the energy being dampened and absorbed by the fibers in the bearing points of a sling while supporting a vibratory hammer.

Incident: In 2013, Cajun had an incident involving a 90-ton round endless sling that snapped when pulling sheet piling with a vibratory hammer. The vibration from the hammer under tension caused friction inside of the sling, which led to the fiber core fusing together. No visible damage was apparent to the crew due to the good condition of the outer protective covers. As soon as the pile was dislodged and the full weight was on the crane, the sling snapped causing the loss of the vibratory hammer and piling into the water.

Other Resources: BP016 Marine – Timber Pile Extraction; BP018 Marine – Timber Pile Installation; BP032DF – Sheet Pile Installation/Extraction

Payoff

Using the manufacturer recommended rigging with vibratory hammers and educating personnel on why presents the opportunity to reduce the risks associated with the job. With this information, crews can help prevent injury and asset damage associated with using improper rigging.



Improper: Nylon Rigging



Proper: Steel Braided Rigging

Revision History					
<i>Rev #</i>	<i>Reason for Changes</i>	<i>Originator</i>	<i>Approver</i>	<i>Approval Date</i>	<i>Effective Date</i>