

MARINE CONSTRUCTION: METHODS FOR USING LARGE STONE

PUBLISHED 6 TIMES A YEAR

EST. 1984

PILEBUCK

THE INTERNATIONAL DEEP FOUNDATIONS
AND MARINE CONSTRUCTION MAGAZINE

JUL/AUG 2018
VOLUME 34, ISSUE 4



REBAR CAGES FOR DRILLED SHAFTS

USING THE RIGHT STEEL,
STRENGTHENING TECHNIQUES,
LIFTING STRATEGIES,
AND MORE

PLUS

TEAMWORK TACKLES
Hard Rock Foundation Challenges

ESSENTIAL CHECKLISTS
For Geotechnical Projects

GIKEN MANHATTAN PROJECT
Utilizing the Press-in Piling Method

Photo credit: Foundation Technologies, Inc. – ShaftSpacer® Division.





By Luke Wittenbraker

STEEL PILE REMOVAL AT BROADWAY BRIDGE

Little Rock, AR

Photo credit: Massman.

JOB STORY

The client had recently completed a bridge project which entailed building the arch spans of the new bridge on barges connected to steel piles and anchored into the river bottom with concrete. Once the new arch spans were erected, the old bridge was demolished. The new spans were then floated into position on the barges and lowered onto the new substructures.

This project was meticulously planned with a tight deadline in order to remove traffic from the old bridge and get it flowing over the new bridge within a timeframe of 180 days. Once the new arch spans were in place, the client needed to remove the 19 steel piles that were used to hold the barges in position during the erection process. The piles had an outside diameter of 48 and 60 inches with a $\frac{7}{8}$ -inch wall thickness.

Mactech Offshore was chosen for the job due to their ability to quickly and efficiently make internal cuts to the piles, using their Internal Diameter Milling Machine – also known as an ID Sever. >>





Precision

Pipe & Piling
a **kellypipe** company

(253) 874-2011

Dave Rayfield

www.precisionp-p.com

**A massive inventory of high-strength piling
ready to ship to your project.**

**View our inventory at www.precision-p.com
for an attractive alternative to prime!**

New Arrival:

Import S.A.W.L. API5L X42/A252 Gr. 3
50 KSI MIN Y.S.
No Coating, Beveled Ends
IN STOCK

Featured A252 M & M Inventory:

Domestic A252Gr. 2-3
Hydro Tested to 500 PSI
Melted & Manufactured in USA &
BUY AMERICA COMPLIANT!

Import A252 Gr. 3 50 KSI MIN Y.S.

100% SEAM UT per API5L
ID Scarf per API5L
Bare No Coating, Beveled Ends
IN STOCK



From coast to coast, border to border, discover the strategic resources Precision Pipe & Piling provides to better serve your structural needs.



Pipe is available for expedited shipment from stock!
All items in our inventory are Buy American Compliant.



JOB STORY

MACTECH OFFSHORE'S ROLE IN THE PROJECT

Mactech provided its 33-60-inch ID Sever to cut piles which lay 15 feet below the river bed.

This tool reliably cuts casing, pilings, and other round, hollow tubes from the inside. Cutting below the mudline (BML) is made safe and efficient with this unique tool. No external dredging or digging is required. The ID Sever is lowered into the cleaned pipe, and then the self-centering mechanism is activated and the cut is made.

MACTECH OFFSHORE'S VALUE ADDING TO THE PROJECT

With recent rains in the area, the river was running higher than normal and the current made it difficult to work in the river using conventional methods. Mactech's machine enabled the client to cut and remove the piles



PILE IT ON. WE CAN HANDLE IT.

Built on seven decades of experience, our Pile Cushion Blocks are custom made and engineered to meet your exact specifications.



SQUARE, ROUND & CUSTOM CUSHION BLOCKS
FORMING MATERIAL • HARDWOOD TIMBERS & LAGGING



the source for **INDUSTRIAL FOREST PRODUCTS**



LODGE LUMBER.COM
P 1.800.856.6679

5001 OATES RD.
HOUSTON, TEXAS 77013

Floating Construction Equipment Since 1995



**The strongest,
most versatile portable
section Barge on the market!**

Poseidon® Barges are available in 5', 7', and 10' Hulls to support your pile driving needs.

Our patented roll form deck is rated at 20,000 psf; 4 times stronger than the competition!

Let our team lay out your Barge solution!

Call 866-992-2743

POSEIDON® BARGE, LTD

725 East Parr Road, Berne, IN 46711

PH: 866-99-BARGE; FAX: 260-424-8635

WEBSITE: www.poseidonbarge.com

STOCK LOCATIONS: Berne, IN • Plain, WI • Leland, NC

Cocoa, FL • Wilton, NY • St. Louis, MO • New Orleans, LA



JOB STORY

without any need to use divers for torch cutting.

Mactech always makes a total commitment to safe working practices, both in equipment design and services performed. The ability to utilize the ID Sever in this specific circumstance kept human resources safer in under less than favorable conditions.

The company's emphasis on reliability and consistency in equipment design allows contractors to produce full thru-cuts on pipe sections, giving operators both confidence and confirmation regarding cuts. Being sure of your cuts when it is time to make them puts project managers' minds at ease and helps a project schedule stay on pace for on-time completion.

Because of funding and timelines, there is always a focus on producing the best cut times in the industry. With cut times of just under 60 minutes for this project, Mactech more than satisfied the client, allowing them to have confidence that time was on their side with regard to planning the removal of these piles.

ALTERNATIVE METHODS TO MACTECH OFFSHORE'S SOLUTION

Diving was considered, but ultimately deemed less economical, as the ID Sever offered greater production rates and allowed the client to salvage more lengths of piling.

STEPS TAKEN TO COMPLETE THE JOB

- The client contacted Mactech in February to discuss the possibility of using their equipment for the final phase of the project.
- The project mobilized in March.
- The cutting of 19 piles was completed in four days.
- The average cut time equaled 60 minutes per pile.

RESULTS

The customer was very pleased with both the ID Sever and the cutting. Going forward, the client now has an alternative to using divers for the removal of piles. ■

