

# Eaton's Hydraulics Operations Locks Up First Civil Construction Project with U.S. Army Corps of Engineers



**Customer**  
OCCI Inc.

**Markets Served**  
Civil engineering

*"Eaton experience, responsiveness, and product technology open doors for a key North American civil construction project with the U.S. Army Corps of Engineers."*

**To learn more, contact:**

David Kelley  
Eaton Corporation  
Hydraulics Operations  
14615 Lone Oak Road  
Eden Prairie, Minnesota  
(636) 717-0879  
davidkelley@eaton.com

OCCI's rehabilitation services at Lock No. 19 on the Upper Mississippi River will include ripping out 50-year-old cylinders and replacing them with custom Eaton hydraulic cylinders.

**Background**

Products from Eaton will help make the Mississippi River mightier than ever. Eaton will be providing hydraulic cylinders and hydraulic controls for the rehabilitation of locks located on the Upper Mississippi River near Keokuk, Iowa. The ground-breaking contract marks the first opportunity for Eaton's Hydraulics Operations to support a North American civil construction project funded by the U.S. Army Corps of Engineers.

Eaton's Hydrowa® cylinders and Eaton® controls will be used to actuate the lock's guard and service gates.

The U.S. Army Corps of Engineers Rock Island (Illinois) District has selected OCCI Inc., of Fulton, Missouri, as the prime

contractor for the Lock No. 19 project. OCCI is responsible for replacing the existing lift gate machinery that was put into operation in 1957 to bridge uneven waters.

In order to minimize the impact to barge navigation, the reconstruction of the lock will take place from December 15, 2007 to March 11, 2008, a time span in which icy conditions normally restrict passage.

**Challenge**

OCCI traditionally has relied on competitive cylinders for its marine and heavy civil construction projects. For the past two years, Eaton personnel have been working to change the minds of OCCI decision makers by introducing and affirming Eaton's capabilities in custom cylinder production

for civil construction applications. Joining in the effort were David Kelley, area sales manager; Kendall Kirkpatrick, product sales manager; and Tom Moore, Eaton Business Development.

"In the beginning, OCCI people told us that they simply didn't have experience with Eaton," Kelley says.

"In order to be noticed and considered a viable source, we knew we needed to stay in the forefront of their minds by continually reinforcing our experience in global civil projects."

Eaton's persistence paid off when OCCI gave Eaton the opportunity to quote on the supply of four 18-inch bore cylinders for the Lock No. 19 project. Soon challenges

emerged. First, Eaton was required to provide a proposal within a week, despite the large, custom nature of the project. Second, the complete system delivery was required within 12 months. Knowing that OCCI had experienced delivery issues with past cylinder manufacturers, Eaton knew delivery execution was critical.

Kelley, along Eaton's Application and Commercial Engineering (ACE) Industrial team and Eaton's global cylinder team, worked to put together a sound quote that covered every aspect of cylinder supply. By teaming up with manufacturing representatives at the Eaton Eindhoven cylinder facility, the cross-functional team provided a competitive quote and delivery schedule for OCCI's review within just seven days.

"Our timely response was the result of quick action by Eaton's global team," Kelley says.

#### **Solution**

Prior to its final decision to utilize Eaton, OCCI wanted the Corps of Engineers to have the opportunity to meet the Eaton team and learn about its capabilities. OCCI arranged a meeting for Eaton to demonstrate its strengths before Corps of Engineers representatives at the Rock Island District office. The Eaton team presented its strengths in cylinder production and cited numerous examples of Eaton cylinders being put to the test in global civil construction projects, such as the Panama Canal, South Korea Saemangeum Dam and others.



Lock No. 19 will be equipped with four 18-inch bore Eaton cylinders with custom machined flange mounting requirements.

#### **Results**

Impressed with Eaton's experience, tenacity, and responsiveness, as well as with the concurrence of the Corps of Engineers, OCCI decided to use Eaton cylinders in the rehabilitation and maintenance of Lock No. 19.

Eaton had a final challenge to overcome, even with the business contract in hand. During the site review with the Eaton Field Service Group, discrepancies were found between the installed cylinder dimensions and the dimensions specified on the original 1950s-era drawings of the lock, to which Eaton formulated its quote. With exacting requirements crucial to the project, Eaton worked closely with OCCI and the Corps of Engineers to determine precise cylinder specifications before production startup.

Eaton is scheduled to deliver two cylinders to Lock No. 19 by October 1, 2007, and the remaining two by December 1, 2007. The custom cylinders will have 18-inch bores, 7-inch rods, and 151-inch strokes. Each will be equipped with industry-leading technology: a Hypos position sensor that provides a precise measurement system integrated into the cylinder, specially machined tube for mounting requirements, and one of many robust Application-Based Coatings that Eaton offers for anti-corrosive and anti-wear environments.

"The opportunity to prove Eaton's capabilities to the Corps of Engineers is a significant achievement," Kirkpatrick says.

"The Corps of Engineers is waiting for us to perform, and Eaton is poised to deliver."

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