



**US Army Corps  
of Engineers**®

St. Paul District

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**Public Affairs**

# Corps Facts

## Dredge Thompson

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### **Mission**

The U.S. Army Corps of Engineers, St. Paul District, used the Dredge William A. Thompson to maintain 850 miles of the Upper Mississippi River, 335 miles of the Illinois River and other inland rivers, from May 1937 until May 2005, well after its original projected life of 50 years. It was the largest of her type used by the Corps; and during the last several years, it has been the only cutterhead dredge being used in the federal fleet. It received only minor design modifications and was meticulously maintained throughout its working life.

### **History**

The Dravo Corporation of Pittsburgh built the Dredge Thompson for the St. Paul District in 1936 for nearly \$900,000, or \$1.3 million with contract modifications. Christened in Pittsburgh in March 1937 by William Thompson's granddaughter, Louise, the dredge was first sent to New York, where its galley, mess and quarters were fitted. It was then returned to Pittsburgh, where crews completed its construction. In May 1937, it made a 1,700-mile trip down the Ohio and up the Mississippi rivers, arriving at its permanent station in Fountain City, Wis., on May 22, 1937. Through nearly seven decades of service, the Thompson's original design was only slightly modified.

The dredge was named after William A. Thompson, a Corps' employee from 1878 through 1925. In 1896, he was appointed to the position of assistant engineer, responsible for improvements on the Mississippi River between Winona, Minn., and the mouth of the Wisconsin River at Prairie du Chien, Wis. He held this post until his death.

### **Dredge Features**

The Dredge Thompson is 267-feet long, 48-feet wide and weighs 1,370 tons. Its wrought iron hull is 8-feet deep, and its draft is 6 feet. It can dredge a maximum of 1,000 cubic yards per hour up to a depth of 28 feet. It is propelled by two 500 hp direct current (DC) motors. The Thompson has a 22-inch suction pipe diameter with a 20-inch discharge pipe diameter. It has 28-feet dredging depth capability, a 300-foot cut width diameter and is capable of pumping sand about 2 miles at 1,000 cubic yards per hour.

The Thompson is a self-propelled dredge that includes a galley and crew quarters. By design, the Thompson is uniquely suited for working the large, shallow-face dredge cuts required to maintain a 9-foot channel in the Upper Mississippi River. Functioning somewhat like a vacuum cleaner, a cutterhead pipeline draws in sand and water from the river bottom and discharges the material through a pipeline to a placement site. Its mechanically advances through the dredge cut with "walking spuds" manually operated by the Leverman. Its "tinker toy" collection of pipe support pontoons and extensive use of plastic discharge pipe make it ideal for quick setup and breakdown of operations, especially under emergency conditions. A highly trained and experienced crew leads to its efficiency.