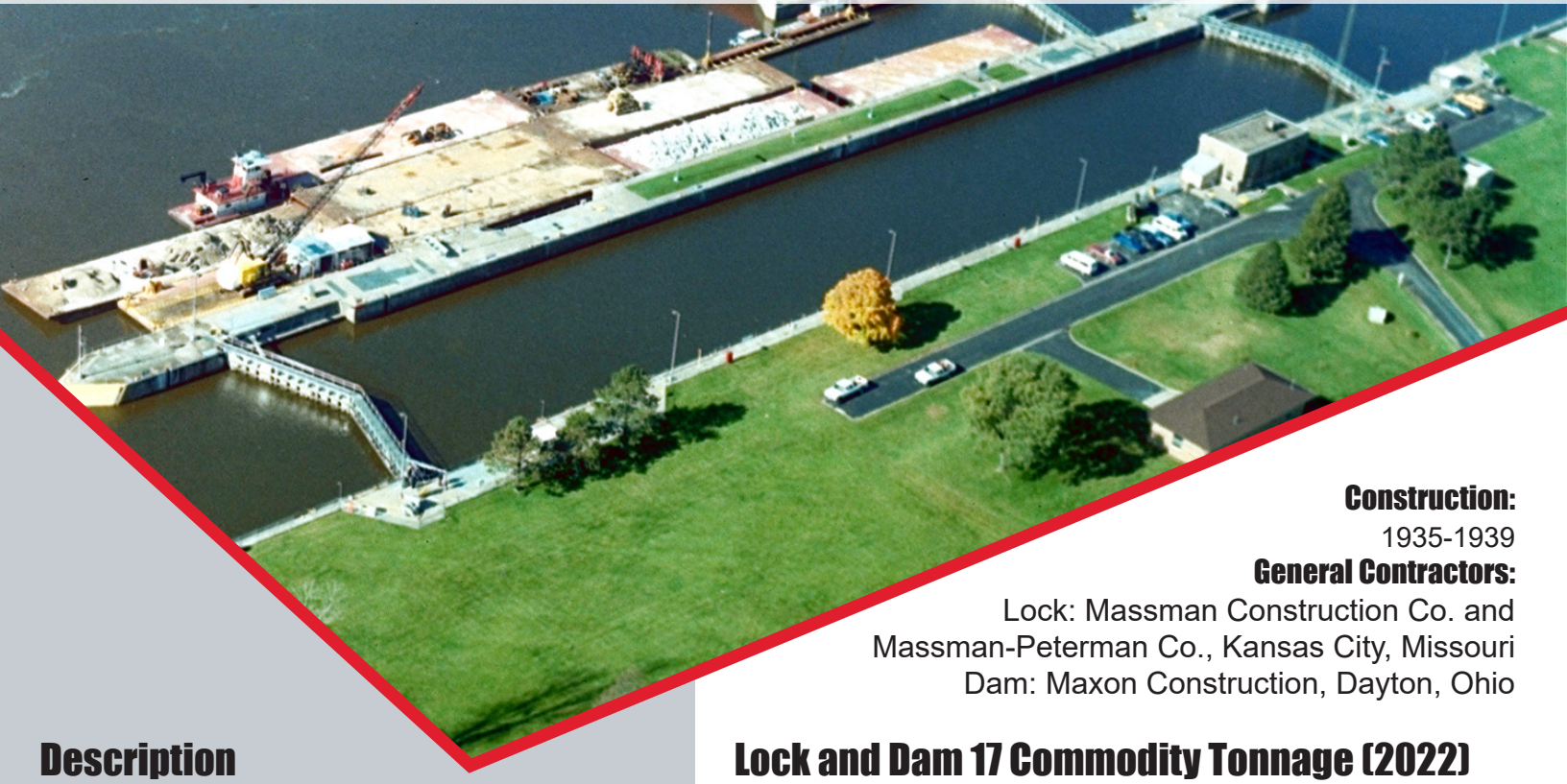
Lock & Dam 17

Mississippi River, *New Boston, Illinois*



Construction:
1935-1939
General Contractors:
Lock: Massman Construction Co. and Massman-Peterman Co., Kansas City, Missouri
Dam: Maxon Construction, Dayton, Ohio

Description

Lock and Dam 17 is 437.1 miles above the confluence of the Mississippi and Ohio rivers. The complex stretches across a wide portion of river where there are several marshy islands. The Port Louisa National Wildlife Refuge and Odessa State Wildlife Management Area occupy the islands, marshes, and sloughs on the Iowa shore both upstream and downstream from the dam.

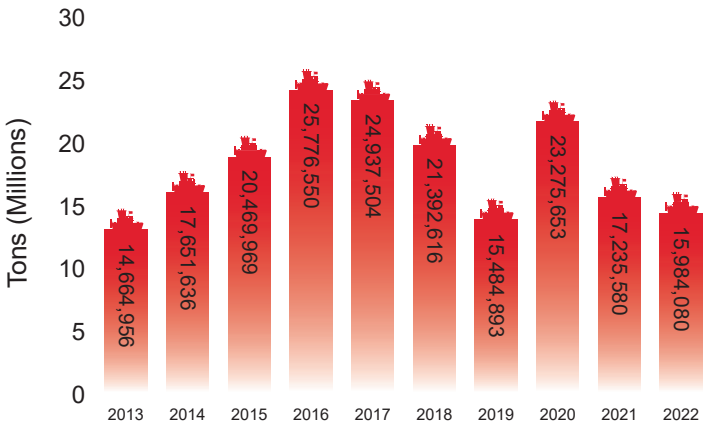
The lock dimensions are 110 feet wide by 600 feet long with additional provisions for an auxiliary lock. The maximum lift is eight feet with an average lift of four feet. It takes approximately seven minutes to fill or empty the lock chamber.

The movable dam has eight submersible Tainter gates (20 feet high by 64 feet long) and three submersible roller gates (20 feet high by 100 feet long). The dam system also includes one non-overflow earth and sand-filled dike; two transitional dikes; and a submersible earth and sand-filled dike. It takes six hours for water to travel from Lock and Dam 16 in Muscatine, Iowa, to Lock and Dam 17.

Lock and Dam 17 Commodity Tonnage (2022)

Food and Farm Products	8,665,970
Chemicals and Related Products	3,553,790
Crude Materials, Inedible, Except Fuels	1,262,710
Primary Manufactured Goods	1,193,370
Coal, Lignite, and Coal Coke	683,290
Petroleum and Petroleum Products	640,490
Manufactured Equipment & Machinery	27,150
Waste Material	--
Unknown or Not Elsewhere Classified	4,800
Total Tonnage	**15,984,080**

Annual Tonnage (10 Year- Historical)



U.S. ARMY CORPS OF ENGINEERS – ROCK ISLAND DISTRICT
CLOCK TOWER BUILDING, P.O. BOX 2004, ROCK ISLAND, IL 61204-2004
Corporate Communications Office, (309) 794-5729, www.mvr.usace.army.mil

History/Significance

Construction on Lock 17 began on Aug. 7, 1935 and was completed in February 1937. Construction on Dam 17 began in February 1937 and was completed in January 1939. The structure was placed in operation on May 14, 1939.

The site was inaccessible from the nearest highway. As a result, the contractors for the lock had to construct a 3.7-mile-long entrance road. The remoteness of the site caused other problems. Not enough workers could commute to the job site from their homes. As a result, the Massman Construction Company and the Massman-Peterman Company built a workers' camp near the lock and dam site. This camp consisted of eleven 16-man bunk houses and a large mess hall. A total of 1,573 men were employed on the lock construction at one time or another, with 626 men working on the peak day of construction which was July 8, 1936.

Only 18 days of extremely cold weather, seven days of hot weather, and a 30-day delay due to a flood on the Ohio River at a steel fabricators plant for a total of 55 days extension beyond the scheduled completion date of time were required for completing the lock. A contract for $32,250 was issued in 1937 to a second contractor for clearing the trees on the islands extending about two miles upstream from Dam 17. The lock and dam elements of the complex were completed at a federal cost of $4,164,000.

Lock 17 underwent rehabilitation in the early 1990's. The dam underwent rehabilitation in the late 1990's. Major work completed included lock electrical replacement, lock gate and valve machinery replacement, lock concrete repairs, lock gate and valve refurbishment, dam scour protection, and dam gate machinery and chain replacement. Rehabilitation work was intended to increase the lock's useful service window by 25 years. The lock gates and upper anchorages were replaced within the last 5 years.

Vessel & Lockage Data (2021)

Average Delay - Tows (Hours)	2.1
Barges Empty	4,326
Barges Loaded	10,972
Commercial Vessels	1,740
Commercial Lockages	2,638
Other Vessels	28
Other Lockages	28
Recreational Vessels	274
Recreational Lockages	229
Total Vessels	2,042
Total Lockages	2,895

The 9-Foot Channel Navigation Project

The 9-foot Channel Navigation Project includes 37 lock and dam sites (42 locks) on 1,200 river miles in Illinois, Iowa, Minnesota, Missouri and Wisconsin. Constructed largely in the 1930s, it extends from Minneapolis-St. Paul on the Upper Mississippi River to its confluence with the Ohio River near Cairo, Illinois, and up the Illinois Waterway to the T.J. O'Brien Lock in Chicago.

The system is often compared to a stairway with the "treads" being the pools of water created by each dam, with the locks serving as "risers," carrying boats from one river pool to the next like an elevator. This system of locks and dams provides what the rivers in their natural states couldn't – a dependable nine-foot depth for commercial navigation.

Operating the locks and dams is a continuous job as tows and recreational vessels lock through year-round, if weather conditions permit. The structures have long outlived their life expectancy but continue to operate efficiently thanks to the hard work and dedication of USACE employees who operate and maintain the structures.

The inland waterway navigation system is essential to the economy of the Midwest as well as the nation and world. More than 580 facilities ship and receive commodities within the Nation's Corn Belt Ports Statistical Area. Grains (corn and soybeans) dominate traffic; cement and concrete products are the second largest group. A modern 15-barge tow transports the equivalent of 1,050 semi-trucks (26,250 tons, 937,387 bushels of corn, or 240 rail cars). On an annual basis, the 9-foot channel project provides billions of dollars in transportation cost savings to the navigation industry.

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