

## Treadwheel cranes on Customs House Quay

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This French print shows two treadwheel cranes on Customs House Quay. The treadwheel crane was a common sight along the Thames in early nineteenth century London, and they were used in the London Dock. The cranes were known as called ‘walking wheel cranes’ because they were worked by gangs of men walking inside a large wooden wheel with a rope or chain wrapped around the axle or a smaller drum. The rope went over a pulley at the end of the jib and was attached to the load. Thus the load could be raised or lowered. The jib was attached to a wooden box containing the treadwheel. On these cranes the jib is fixed to a separate post at the side of the box, the box being supported on four posts with a space underneath. This additional height allowed unloading of goods from the bottom of a ship’s hold. Accidents were common so a number of safety devices were tried in the eighteenth century, but were not adopted by most owners. Newspapers continued to report accidents in the nineteenth century.

Treadwheel cranes were used on London’s riverside from the Middle Ages.<sup>1</sup> There were three set up on the appropriately named Three Cranes Wharf where large casks of wine from the Continent were unloaded. Prior to the erection of the cranes wine had been transported in amphorae, as it had been for centuries. These early cranes resembled post mills with the buck containing one or more treadwheels. On the Continent this type of crane evolved into a ‘tower mill’ version with the treadwheels within a stone tower with the jib projecting from a cap which could be turned so that the load could be raised or lowered anywhere round the crane.<sup>2</sup> There is an example of a ‘post mill’ type of crane at Lüneburg in northern Germany. Several ‘tower mill’ types survive in Germany including one at Andernach on the Rhine, and two at Trier.

In Britain the ‘post mill’ crane evolved a different way, into the wooden box type. Two survive. One is in Guildford, beside the River Wey, this has one wheel; the other, with two wheels, is in Harwich.

1 John Stowe, *A Survey of London*, 1598 (1994 edition) pp 156-7

2 J Kenneth Major, *Animal Powered Engines*, London 1978, p34-43 and Gazetteer p99ff