



Building the Meccano bridge in Liverpool

Meccano is an educational toy that encourages children to construct models out of metal. Anything from a robot to a bridge or a plane can be made using this toy, whose basic parts consist of long strips and flat plates of metal, together with the nuts and bolts that are needed to put them together.

The idea for Meccano began in a small shop in Liverpool in 1898, when Frank Hornby invented a construction game for his children using screws and nuts. This gave rise to the Meccano system at the very beginning of the 20th century. (1) Some 66 years later, the factory here closed and production was moved to France, and later, also to China.

It was no accident therefore that Liverpool was chosen as the place where a lifesize bridge made solely from pieces of Meccano would be built. The project formed part of a TV series called 'James May's Toy Stories', which featured ambitious constructions out of some of Britain's best-loved toys. (2)

If the total length of Meccano used in the bridge was laid end to end, it would stretch over 5 kilometres. Around 100,000 individual pieces were needed and it took 11 weeks to build the bridge. (3)

- A Five teams from the School of Architecture took part in this and some excellent work was produced.
- B One of the first places where it was made was the British city of Liverpool.
- C This is a club where fans of the product get together to share ideas.
- D That was the amount of time needed once the preliminary planning and design work had been done.

For the earlier stage, Liverpool University was approached by the television company and asked to run a bridge design competition. (4) The winning proposal was drawn up by three of their most talented students, whose ideas were then taken forward by a structural engineering consultant and turned into professional drawings.

Engineering students at Liverpool University were largely responsible for the bridge's construction, assisted by members of the North East Meccano Guild. (5) They also organise regular museum visits and were eager to participate in the bridge-building project.

The Meccano bridge spans a canal and is in two sections. These are connected by a series of pulleys and work together. (6) The other rolls out vertically and both sections meet over the middle of the canal to form a level platform. At the public opening, TV presenter James May had to walk the whole way across the bridge. He admitted to feeling nervous as a big crowd encouraged him to take his first steps. However, there was no need for concern, as the bridge supported his weight without problems.

- E One of the pair looks a bit like a canal lock gate and swings out horizontally.
- F This canal extension runs from Liverpool to Leeds and the new bridge sits five metres above it.
- G Other programmes included the building of a real house from Lego and a lifesize 'model' plane.

