

The History & Development of Engineering Workshops

By Mr R Fitzgerald presented on January 30th 2007

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In the 1750's there were no engineering workshops. The machines were made principally from wood and were constructed on site. This was also true of the erection of early steam engines. This tradition from say corn mills was continued in the early textile mills where Arkwrights water frames were built at the mills with the assistance of clock makers. But some early engineering workshops were established in place like Leeds where textile machinery was fabricated in multi storey buildings similar to textile mills. This tradition continued for many years. A good example is Patricroft Foundry started by James Nasmyth in 1838 with part built like a multi storey cotton spinning mill.

The more usual type of engineering workshop with a single storey and wide lofty span probably arose through steam engine builders like Boulton and Watt needing to supervise the manufacture more closely. Both they and Murray in Leeds erected such building together with their foundries. Further impetus towards the single storey engineering works, often built around a quadrangle, was given by the railway locomotive. During the 1830's large orders might be placed with locomotive manufacturers such as E B Wilson and Nasmyths. Erecting these machines could best be done in long lines in the main section with lower sections either side, where there could be the machine tools and fitters benches. One such surviving building is Garrett's Long Shop at Beeston.

By the 1840's the travelling overhead crane had been introduced. this hastened the trend towards wide span buildings with glazed roofs. There might be many bays side by side, all served by overhead cranes. the rails for travelling cranes might be supported by the side walls, or wooden framing, or cast iron pillars. The 1880's saw the introduction of steel structures, enabling spans to be extended, the height raised and the number of bays increased.