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MECHANICAL



Study of mechanical

Mechanical engineers work on the design, development, and maintenance of mechanical systems, ranging from large industrial machinery to small consumer products. With the need for increased efficiency and sustainability in various industries, mechanical engineering remains a crucial field in 2023.

Technology has enabled mechanical engineers to develop more efficient and effective solutions to complex problems. With advances in technology, new materials, and innovative ideas, mechanical engineers are set to make a big impact in the future. Here are some of the technologies that are changing the industry.

Typical duties of mechanical engineering

A mechanical engineer designs, builds, and repairs machinery and products. The first stages of a machine or a product will be based on the basic designs created by the mechanical engineer.

Mechanical engineers use mathematics and physics to produce functional and feasible design concepts. A mechanical engineer is typically involved in managing the process of designing and manufacturing machinery, products, or equipment.



HISTORY

The application of mechanical engineering can be seen in the archives of various ancient and medieval societies. The six classic simple machines were known in the ancient Near East. The wedge and the inclined plane (ramp) were known since prehistoric times.[4]

The lever was also used in the shadoof water-lifting device, the first crane machine, which appeared in Mesopotamia circa 3000 BC.[6] The earliest evidence of pulleys date back to Mesopotamia in the early 2nd millennium BC.[8]

Bloomeries and blast furnaces were developed during the seventh century BC in Meroe.[11][12][13][14] Kushite sundials applied mathematics in the form of advanced trigonometry.[15][16]

The wheel, along with the wheel and axle mechanism, was invented in Mesopotamia (modern Iraq) during the 5th millennium BC.[5] The lever mechanism first appeared around 5,000 years ago in the Near East, where it was used in a simple balance scale,[6] and to move large objects in ancient Egyptian technology.[7]

The Sakia was developed in the Kingdom of Kush during the 4th century BC. It relied on animal power reducing the tow on the requirement of human energy.[9] Reservoirs in the form of Hafirs were developed in Kush to store water and boost irrigation.[10]

machines, the water wheel and watermill, first appeared in the Persian Empire, in what are now Iraq and Iran, by the early 4th century BC.[17] In ancient Greece, the works of Archimedes (287–212 BC) influenced mechanics in the Western tradition.

