

Machines and their Histories with Revolutions

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Abstract:

The paper presents ideas and developments about machines, their new forms and their histories with revolutions

A machine is a physical system that uses the power to apply forces and control movement to perform an action. The term is commonly applied to artificial devices.

Machines can be driven by animals and peoples by natural forces such as wind and water and by chemical, thermal or electrical power and include a system of mechanism that shape the actual input to achieve a specific application of output forces and movement. They can also include computers and sensors that monitor performance and plan movement often called mechanical systems.

Modern machines are complex systems that consists of structural elements mechanism and control components and include interfaces for convenient use.

Examples include a wide range of vehicles such as trains, automobiles, boats and airplanes appliances in the home and office including computers building air handling and water handling systems as well as farm machinary, machine tools.

In the 17th century the word machine could also means a scheme or plot a meaning new expressed by the derived machination.

History of Machines:

The hand axe made by chipping flint to form a wedge in the hands of a human transformation force and movement of the tool into a transverse splitting forces and movement of the workpiece. The hand axe is the first example of a wedge the oldest of the six classic simple machines from which most machine are based.

The other four simple machines have invented in the ancient near east. The wheel along with the wheel and axle mechanism was invented in mesopotamia during 5th millenium BC.

The earliest evidence of pulleys a date back to mesopotamia into the early 2nd millenium BC.

The screw the last of the simple machines to be invented first appear in Neo-Assyrian period (911-609) BC.

Greek philosophers defined the classic five simple machines and were able to roughly calculate their mechanical advantages.

The classic rules of sliding friction in machines were discovered by Leonardo-da-vinci(1452-1519).

The industrial revolution was a period from 1750 to 1850 where changes in agriculture, manufacturing, mining, transportation and technology had a profound effect on the social economic and cultural conditions of times.

Conclusions:

Machines, their some forms and their historical developments are presented in brief in the matter.

Keywords:

artificial devices, sensors, revolution, wheels, history of machines.