

Planetary Gearbox

A planetary gearbox, also known as an epicyclic gearbox, is one of the most exciting in motion control. They are often used in automobiles as an important part of automatic transmissions.

Planetary Gearboxes are a type of gearbox where the input and output both have the same centre of rotation. This means that the centre of the input gear revolves around the centre of the output gear and the input and output shafts are aligned.

How Does a Planetary Gearbox Work?

The alignment of the gears can be compared to our solar system where the planets revolve around the sun, hence the name “Planetary Gearbox”.

In the middle of the planetary gearbox is a “sun” gear –also known as a central gear. This is often the input gear. Around the outside, there are two or more “planet” gears – or outer gears. Surrounding the planet gears is a ring gear holding the formation together. The planet gears are connected by a carrier which in turn is connected to the output shaft.

Interact with the attached CAD file to further understand it.