

Subject : Mechanical Engineering

Topic : Clutch and Gears

Question : What is Helical gears?

Answer :



Helical gears are gears in which the teeth are cut in the form of helix around the gear. Helical gearing is used to connect parallel shafts as well as non- parallel shafts. The pitch surfaces are cylindrical as in spur gearing, but the teeth, instead of being parallel to the axes, wind around the cylinders helically like screw threads.

Compared to spur gears, they have the larger contact ratio and excel in quietness and less vibration and able to transmit large force. A pair of helical gears has the same helix angle but the helix hand is opposite.

Helical gears normally used for high speed, high power mechanical systems.

Helical gears are often used in automotive transmissions by replacing spur gears.

Example: Car gear box, machine tools etc.