Forklift Gears

A gear pump is one of the most common kinds of pumps utilized for applications of hydraulic fluid power. A gear pump operates by using the meshing of gears in order to pump fluid by displacement. These machines are generally used in chemical installations to be able to pump fluid with specific viscosity. Two basic types of gear pumps exist. Internal gear pumps make use of an external and an internal spur gear and external gear pumps make use of two external spur gears. Gear pumps pump a constant amount of fluid for each revolution. This defines them as fixed or positive displacement. Several gear pump machines are designed to work as either a pump or a motor.

As the gears rotate on the pump, this action works to be able to divide the pump's intake side, creating a void and a suction that is filled by fluid. This fluid is carried by the gears to the discharge side, where the fluid is displaced by the meshing of the gears. There are really small and tight mechanical clearances, which along with the speed of revolution effectively prevent the fluid from leaking backwards. The rigid design of the gears and houses gives the pump its ability to pump highly viscous fluids and allow for excessively high pressures.