

## Alternator for Forklift

Alternator for Forklift - An alternator is a device that changes mechanical energy into electric energy. It does this in the form of an electrical current. Basically, an AC electrical generator could likewise be labeled an alternator. The word usually refers to a rotating, small machine powered by automotive and different internal combustion engines. Alternators which are located in power stations and are driven by steam turbines are called turbo-alternators. Most of these devices utilize a rotating magnetic field but sometimes linear alternators are used.

Whenever the magnetic field around a conductor changes, a current is induced in the conductor and this is the way alternators produce their electrical energy. Often the rotor, which is a rotating magnet, revolves within a stationary set of conductors wound in coils situated on an iron core which is referred to as the stator. If the field cuts across the conductors, an induced electromagnetic field likewise called EMF is produced as the mechanical input causes the rotor to turn. This rotating magnetic field produces an AC voltage in the stator windings. Typically, there are 3 sets of stator windings. These physically offset so that the rotating magnetic field induces 3 phase currents, displaced by one-third of a period with respect to each other.

"Brushless" alternators - these make use of brushes and slip rings together with a rotor winding or a permanent magnet to be able to generate a magnetic field of current. Brushless AC generators are usually found in larger devices like for example industrial sized lifting equipment. A rotor magnetic field may be induced by a stationary field winding with moving poles in the rotor. Automotive alternators normally make use of a rotor winding that allows control of the voltage induced by the alternator. It does this by changing the current in the rotor field winding. Permanent magnet devices avoid the loss because of the magnetizing current in the rotor. These devices are restricted in size due to the cost of the magnet material. The terminal voltage varies with the speed of the generator as the permanent magnet field is constant.