

## Alternator for Forklift

Forklift Alternators - An alternator is a device which transforms mechanical energy into electrical energy. This is done in the form of an electrical current. In principal, an AC electric generator can be called an alternator. The word normally refers to a rotating, small machine driven by automotive and different internal combustion engines. Alternators which are situated in power stations and are driven by steam turbines are referred to as turbo-alternators. The majority of these devices use a rotating magnetic field but occasionally linear alternators are also used.

Whenever the magnetic field all-around a conductor changes, a current is produced inside the conductor and this is actually the way alternators generate their electricity. Usually the rotor, which is actually a rotating magnet, revolves within a stationary set of conductors wound in coils located on an iron core which is known as the stator. When the field cuts across the conductors, an induced electromagnetic field or EMF is produced as the mechanical input makes the rotor to turn. This rotating magnetic field generates an AC voltage in the stator windings. Usually, there are 3 sets of stator windings. These physically offset so that the rotating magnetic field produces 3 phase currents, displaced by one-third of a period with respect to each other.

"Brushless" alternators - these utilize brushes and slip rings together with a rotor winding or a permanent magnet to be able to induce a magnetic field of current. Brushless AC generators are normally located in bigger devices like industrial sized lifting equipment. A rotor magnetic field could be produced by a stationary field winding with moving poles in the rotor. Automotive alternators often utilize a rotor winding that allows control of the voltage produced by the alternator. This is done by varying the current in the rotor field winding. Permanent magnet devices avoid the loss due to the magnetizing current inside 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.