## Alternator for Forklift

Forklift Alternators - An alternator is a device which changes mechanical energy into electrical energy. It does this in the form of an electric current. In essence, an AC electric generator can also be referred to as an alternator. The word usually refers to a small, rotating device powered by automotive and various internal combustion engines. Alternators which are situated in power stations and are driven by steam turbines are known as turbo-alternators. Nearly all of these devices make use of a rotating magnetic field but every so often linear alternators are likewise used.

A current is produced inside the conductor if the magnetic field around the conductor changes. Usually the rotor, a rotating magnet, spins within a set of stationary conductors wound in coils. The coils are situated on an iron core known as the stator. If the field cuts across the conductors, an induced electromagnetic field otherwise called EMF is produced as the mechanical input makes the rotor to turn. This rotating magnetic field produces an AC voltage in the stator windings. Normally, 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.

In a "brushless" alternator, the rotor magnetic field can be caused by production of a permanent magnet or by a rotor winding energized with direct current through brushes and slip rings. Brushless AC generators are normally found in bigger machines compared to those used in automotive applications. A rotor magnetic field may be induced by a stationary field winding with moving poles in the rotor. Automotive alternators normally utilize a rotor winding that allows control of the voltage produced 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 machines are limited in size due to the price of the magnet material. The terminal voltage varies with the speed of the generator as the permanent magnet field is constant.