## Forklift Alternator

Forklift Alternators - An alternator is actually a device which changes mechanical energy into electric energy. This is done in the form of an electrical current. Basically, an AC electrical generator can be called an alternator. The word usually refers to a small, rotating device powered by automotive and other internal combustion engines. Alternators which are located in power stations and are driven by steam turbines are actually referred to as turbo-alternators. Most of these machines utilize a rotating magnetic field but every so often linear alternators are likewise utilized.

A current is induced in the conductor whenever the magnetic field all-around the conductor changes. Normally the rotor, a rotating magnet, spins within a set of stationary conductors wound in coils. The coils are situated on an iron core referred to as the stator. Whenever the field cuts across the conductors, an induced electromagnetic field otherwise called EMF is produced as the mechanical input causes the rotor to revolve. 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 induces 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. Brushlees AC generators are normally found in larger machines like industrial sized lifting equipment. A rotor magnetic field could be generated by a stationary field winding with moving poles in the rotor. Automotive alternators usually utilize a rotor winding that allows control of the voltage induced by the alternator. This is done by changing the current in the rotor field winding. Permanent magnet devices avoid the loss because of the magnetizing current inside the rotor. These devices are limited in size because of the price of the magnet material. As the permanent magnet field is constant, the terminal voltage varies directly with the generator speed.