Alternator for Forklift

Forklift Alternators - A machine used to be able to change mechanical energy into electrical energy is actually known as an alternator. It can perform this function in the form of an electric current. An AC electric generator can in principal likewise be called an alternator. Then again, the word is typically used to refer to a small, rotating machine driven by internal combustion engines. Alternators that are located in power stations and are driven by steam turbines are actually referred to as turbo-alternators. Most of these devices use a rotating magnetic field but from time to time linear alternators are utilized.

A current is generated within the conductor when the magnetic field around the conductor changes. Generally the rotor, a rotating magnet, spins within a set of stationary conductors wound in coils. The coils are located on an iron core called the stator. If the field cuts across the conductors, an induced electromagnetic field otherwise called EMF is generated as the mechanical input causes 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.

In a "brushless" alternator, the rotor magnetic field may be made by induction of a permanent magnet or by a rotor winding energized with direct current through brushes and slip rings. Brushless AC generators are usually located in bigger machines as opposed to those utilized in automotive applications. A rotor magnetic field can be generated by a stationary field winding with moving poles in the rotor. Automotive alternators usually make use of a rotor winding which allows control of the voltage generated by the alternator. It does this by changing the current in the rotor field winding. Permanent magnet machines avoid the loss due to the magnetizing current in the rotor. These devices are restricted in size because of the cost of the magnet material. As the permanent magnet field is constant, the terminal voltage varies directly with the generator speed.