Engines for Forklift

Forklift Engine - An engine, also called a motor, is a device that converts energy into functional mechanical motion. Motors that transform heat energy into motion are called engines. Engines come in several types such as internal and external combustion. An internal combustion engine normally burns a fuel with air and the resulting hot gases are used for generating power. Steam engines are an example of external combustion engines. They use heat to be able to generate motion making use of a separate working fluid.

To be able to produce a mechanical motion via different electromagnetic fields, the electric motor must take and create electrical energy. This kind of engine is very common. Other types of engine could be driven using non-combustive chemical reactions and some will make use of springs and function through elastic energy. Pneumatic motors are driven through compressed air. There are other styles depending on the application required.

Internal combustion engines or ICEs

An internal combustion engine takes place when the combustion of fuel mixes together with an oxidizer in a combustion chamber. In an internal combustion engine, the expansion of high pressure gases mixed together with high temperatures results in applying direct force to some engine parts, for example, pistons, turbine blades or nozzles. This particular force generates useful mechanical energy by way of moving the component over a distance. Usually, an internal combustion engine has intermittent combustion as seen in the popular 2- and 4-stroke piston engines and the Wankel rotary motor. The majority of rocket engines, jet engines and gas turbines fall into a second class of internal combustion engines called continuous combustion, which happens on the same previous principal described.

External combustion engines like steam or Sterling engines vary greatly from internal combustion engines. External combustion engines, where the energy is delivered to a working fluid such as hot water, pressurized water, and liquid sodium or air that are heated in some type of boiler. The working fluid is not combined with, consisting of or contaminated by burning products.

Various designs of ICEs have been developed and placed on the market together with several strengths and weaknesses. When powered by an energy dense fuel, the internal combustion engine delivers an efficient power-to-weight ratio. Although ICEs have been successful in a lot of stationary utilization, their actual strength lies in mobile applications. Internal combustion engines control the power supply used for vehicles like for instance cars, boats and aircrafts. A few hand-held power tools utilize either battery power or ICE gadgets.

External combustion engines

An external combustion engine utilizes a heat engine where a working fluid, like for example steam in steam engine or gas in a Stirling engine, is heated by combustion of an external source. This combustion happens via a heat exchanger or via the engine wall. The fluid expands and acts upon the engine mechanism that generates motion. Afterwards, the fluid is cooled, and either compressed and reused or thrown, and cool fluid is pulled in.

The act of burning fuel with an oxidizer in order to supply heat is referred to as "combustion." External thermal engines may be of similar operation and configuration but use a heat supply from sources such as exothermic, geothermal, solar or nuclear reactions not involving combustion.

The working fluid can be of any composition. Gas is the most common type of working fluid, yet single-phase liquid is sometimes utilized. In Organic Rankine Cycle or in the case of the steam engine, the working fluid changes phases between liquid and gas.