

Forklift Engines

Forklift Engine - An engine, also known as a motor, is a device which transforms energy into useful mechanical motion. Motors which convert heat energy into motion are known as engines. Engines come in many types such as external and internal combustion. An internal combustion engine typically burns a fuel using air and the resulting hot gases are used for creating power. Steam engines are an example of external combustion engines. They utilize heat to be able to generate motion together with a separate working fluid.

The electrical motor takes electrical energy and generates mechanical motion via varying electromagnetic fields. This is a typical type of motor. Some kinds of motors function through non-combustive chemical reactions, other types can use springs and be driven by elastic energy. Pneumatic motors function through compressed air. There are other designs based on the application required.

Internal combustion engines or ICEs

An internal combustion engine happens whenever the combustion of fuel mixes with an oxidizer inside a combustion chamber. Inside an internal combustion engine, the expansion of high pressure gases combined together with high temperatures results in making use of direct force to some engine parts, for instance, turbine blades, nozzles or pistons. This force produces functional mechanical energy by means of moving the part over a distance. Normally, an internal combustion engine has intermittent combustion as seen in the popular 2- and 4-stroke piston motors and the Wankel rotating motor. The majority of jet engines, gas turbines and rocket engines fall into a second class of internal combustion engines referred to as continuous combustion, that takes place on the same previous principal described.

External combustion engines like for instance steam or Sterling engines vary significantly from internal combustion engines. External combustion engines, wherein the energy is delivered to a working fluid like for instance liquid sodium, hot water and pressurized water or air that are heated in some kind of boiler. The working fluid is not combined with, having or contaminated by burning products.

A variety of designs of ICEs have been created and are now available along with numerous weaknesses and strengths. When powered by an energy dense fuel, the internal combustion engine produces an efficient power-to-weight ratio. Although ICEs have succeeded in a lot of stationary applications, their real strength lies in mobile applications. Internal combustion engines control the power supply used for vehicles such as cars, boats and aircrafts. A few hand-held power tools utilize either ICE or battery power equipments.

External combustion engines

An external combustion engine utilizes a heat engine wherein 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 which generates motion. Then, the fluid is cooled, and either compressed and used again or thrown, and cool fluid is pulled in.

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

The working fluid could be of whatever constitution. Gas is the most common kind of working fluid, yet single-phase liquid is occasionally used. In Organic Rankine Cycle or in the case of the steam engine, the working fluid changes phases between liquid and gas.