

## Engines for Forklift

Forklift Engine - An engine, also referred to as a motor, is an apparatus which transforms energy into useful mechanical motion. Motors which convert heat energy into motion are called engines. Engines come in several types like for instance internal and external combustion. An internal combustion engine usually burns a fuel along with air and the resulting hot gases are used for creating power. Steam engines are an illustration of external combustion engines. They make use of heat to generate motion with a separate working fluid.

The electric motor takes electrical energy and produces mechanical motion through varying electromagnetic fields. This is a common type of motor. Various kinds of motors are driven through non-combustive chemical reactions, other types could utilize springs and be driven by elastic energy. Pneumatic motors function by compressed air. There are other styles depending on the application needed.

### Internal combustion engines or ICEs

Internal combustion occurs whenever the combustion of the fuel mixes along with an oxidizer inside the combustion chamber. In the IC engine, higher temperatures will result in direct force to certain engine components like for example the pistons, turbine blades or nozzles. This particular force generates functional mechanical energy by way of moving the part over a distance. Normally, an ICE has intermittent combustion as seen in the popular 2- and 4-stroke piston engines and the Wankel rotating motor. Most jet engines, gas turbines and rocket engines fall into a second class of internal combustion motors known as continuous combustion, which occurs on the same previous principal described.

Steam engines or Stirling external combustion engines very much vary from internal combustion engines. The external combustion engine, wherein energy is to be delivered to a working fluid such as hot water, liquid sodium, pressurized water or air that is heated in a boiler of some type. The working fluid is not mixed with, having or contaminated by combustion products.

Different designs of ICEs have been developed and are now available along with various weaknesses and strengths. If powered by an energy dense fuel, the internal combustion engine delivers an effective power-to-weight ratio. Even though ICEs have been successful 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 boats, aircrafts and cars. A few hand-held power tools use either ICE or battery power equipments.

### External combustion engines

An external combustion engine utilizes a heat engine wherein a working fluid, like for instance steam in steam engine or gas in a Stirling engine, is heated by combustion of an external source. This particular combustion takes place via a heat exchanger or through the engine wall. The fluid expands and acts upon the engine mechanism that produces motion. Then, the fluid is cooled, and either compressed and used again or discarded, and cool fluid is pulled in.

The act of burning fuel with an oxidizer so as to supply heat is known as "combustion." External thermal engines could be of similar application and configuration but use a heat supply from sources like for example nuclear, exothermic, geothermal or solar reactions not involving combustion.

Working fluid could be of whatever constitution, even if gas is the most common working fluid. Sometimes a single-phase liquid is occasionally utilized. In Organic Rankine Cycle or in the case of the steam engine, the working fluid changes phases between gas and liquid.