## Torque Converter for Forklifts

Torque Converter for Forklifts - A torque converter is actually a fluid coupling which is utilized in order to transfer rotating power from a prime mover, which is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is same as a basic fluid coupling to take the place of a mechanical clutch. This enables the load to be separated from the main power source. A torque converter could provide the equivalent of a reduction gear by being able to multiply torque whenever there is a substantial difference between input and output rotational speed.

The fluid coupling unit is the most popular kind of torque converter utilized in car transmissions. In the 1920's there were pendulum-based torque or Constantinesco converter. There are various mechanical designs used for continuously changeable transmissions which have the ability to multiply torque. Like for instance, the Variomatic is one version that has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive that cannot multiply torque. A torque converter has an added element that is the stator. This alters the drive's characteristics during times of high slippage and generates an increase in torque output.

Within a torque converter, there are a minimum of three rotating parts: the turbine, in order to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator is between the impeller and the turbine so that it can alter oil flow returning from the turbine to the impeller. Normally, the design of the torque converter dictates that the stator be stopped from rotating under any situation and this is where the word stator starts from. Actually, the stator is mounted on an overrunning clutch. This particular design prevents the stator from counter rotating with respect to the prime mover while still enabling forward rotation.

In the three element design there have been changes that have been integrated at times. Where there is higher than normal torque manipulation is considered necessary, changes to the modifications have proven to be worthy. Most commonly, these modifications have taken the form of many turbines and stators. Every set has been intended to generate differing amounts of torque multiplication. Several examples include the Dynaflow which utilizes a five element converter so as to produce the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Various automobile converters consist of a lock-up clutch to reduce heat and to enhance the cruising power and transmission efficiency, even though it is not strictly part of the torque converter design. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical which eliminates losses associated with fluid drive.