## Torque Converter for Forklifts

Forklift Torque Converter - A torque converter in modern usage, is commonly a fluid coupling which is utilized in order to transfer rotating power from a prime mover, like for example an electric motor or an internal combustion engine, to a rotating driven load. Similar to a basic fluid coupling, the torque converter takes 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 considerable difference between input and output rotational speed.

The fluid coupling model is actually the most common kind of torque converter used in auto transmissions. During the 1920's there were pendulum-based torque or Constantinesco converter. There are different mechanical designs used for always changeable transmissions which could multiply torque. Like for instance, the Variomatic is one type which has expanding pulleys and a belt drive.

The 2 element drive fluid coupling could not multiply torque. Torque converters have an element referred to as a stator. This changes the drive's characteristics through occasions of high slippage and generates an increase in torque output.

There are a at least three rotating elements within a torque converter: the turbine, that drives the load, the impeller, that is mechanically driven by the prime mover and the stator, that is between the turbine and the impeller so that it could change oil flow returning from the turbine to the impeller. Normally, the design of the torque converter dictates that the stator be prevented from rotating under whichever condition and this is where the word stator begins from. Actually, the stator is mounted on an overrunning clutch. This design prevents the stator from counter rotating with respect to the prime mover while still enabling forward rotation.

Changes to the basic three element design have been integrated periodically. These adjustments have proven worthy specially in application where higher than normal torque multiplication is required. Most commonly, these adjustments have taken the form of multiple stators and turbines. Each set has been meant to generate differing amounts of torque multiplication. Various instances consist of the Dynaflow which uses a five element converter to be able to produce the wide range of torque multiplication required to propel a heavy vehicle.

Different automobile converters consist of a lock-up clutch to reduce heat and to be able to improve the cruising power and transmission effectiveness, even if 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 connected with fluid drive.