

## Torque Converters for Forklift

Torque Converter for Forklifts - A torque converter in modern usage, is usually a fluid coupling that is utilized to transfer rotating power from a prime mover, like for example an internal combustion engine or an electrical motor, to a rotating driven load. Like a basic fluid coupling, the torque converter takes the place of a mechanized clutch. This allows the load to be separated from the main power source. A torque converter can offer the equivalent of a reduction gear by being able to multiply torque when there is a considerable difference between input and output rotational speed.

The most common type of torque converter utilized in car transmissions is the fluid coupling model. In the 1920s there was also the Constantinesco or pendulum-based torque converter. There are other mechanical designs for always changeable transmissions which have the ability to multiply torque. For instance, the Variomatic is one version that has a belt drive and expanding pulleys.

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

There are at least three rotating parts within a torque converter: the turbine, that drives the load, the impeller, which is mechanically driven by the prime mover and the stator, which is between the impeller and the turbine 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 stopped from rotating under whatever condition and this is where the word stator starts from. Actually, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still allowing forward rotation.

In the three element design there have been modifications which have been incorporated at times. Where there is higher than normal torque manipulation is required, alterations to the modifications have proven to be worthy. Most commonly, these alterations have taken the form of many stators and turbines. Every set has been designed to produce differing amounts of torque multiplication. Several instances comprise the Dynaflo that makes use of a five element converter in order to produce the wide range of torque multiplication required to propel a heavy vehicle.

Different car converters consist of a lock-up clutch so as to reduce heat and to be able to improve the cruising power and transmission effectiveness, although it is not strictly part of the torque converter design. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical which eliminates losses related with fluid drive.