

## Torque Converters for Forklifts

Forklift Torque Converter - A torque converter is a fluid coupling that is used to be able to transfer rotating power from a prime mover, that is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is similar to a basic fluid coupling to take the place of a mechanized clutch. This allows 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 output and input rotational speed.

The most popular type of torque converter used in car transmissions is the fluid coupling unit. During the 1920s there was even the Constantinesco or also known as pendulum-based torque converter. There are different mechanical designs utilized for constantly changeable transmissions which have the ability to multiply torque. Like for example, the Variomatic is one type that has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive that is incapable of multiplying torque. A torque converter has an added part that is the stator. This alters the drive's characteristics all through occasions of high slippage and generates an increase in torque output.

There are a minimum of three rotating parts inside a torque converter: the turbine, which 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 prevented from rotating under whatever condition and this is where the word stator begins from. In point of fact, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

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

While it is not strictly a part of classic torque converter design, various automotive converters comprise a lock-up clutch in order to reduce heat and in order to improve cruising power transmission effectiveness. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical that eliminates losses connected with fluid drive.