

## Forklift Torque Converters

Torque Converter for Forklifts - A torque converter is actually a fluid coupling which is utilized so as to transfer rotating power from a prime mover, that is an electric motor or an internal combustion engine, to a rotating driven load. The torque converter is like 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 can offer the equivalent of a reduction gear by being able to multiply torque when there is a substantial difference between input and output rotational speed.

The most common type of torque converter used in automobile transmissions is the fluid coupling kind. During the 1920s there was also the Constantinesco or likewise known as pendulum-based torque converter. There are various mechanical designs utilized for constantly variable transmissions which can multiply torque. Like for instance, the Variomatic is a type 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 additional part that is the stator. This changes the drive's characteristics all through occasions of high slippage and produces an increase in torque output.

Within a torque converter, there are a minimum of three rotating parts: the turbine, to be able 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 change oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be prevented from rotating under whichever condition and this is where the term stator originates 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.

Adjustments to the basic three element design have been incorporated sometimes. These alterations have proven worthy specially in application where higher than normal torque multiplication is needed. Usually, these modifications have taken the form of several stators and turbines. Every set has been intended to generate differing amounts of torque multiplication. Several instances comprise the Dynaflo which uses a five element converter in order to generate the wide range of torque multiplication required to propel a heavy vehicle.

Even though it is not strictly a component of classic torque converter design, various automotive converters comprise a lock-up clutch so as to lessen heat and so as to improve cruising power transmission efficiency. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical that eliminates losses associated with fluid drive.