

## Forklift Torque Converters

Forklift Torque Converter - A torque converter is actually a fluid coupling that is utilized 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 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 can offer the equivalent of a reduction gear by being able to multiply torque when there is a considerable difference between output and input rotational speed.

The most popular kind of torque converter used in auto transmissions is the fluid coupling unit. In the 1920s there was likewise the Constantinesco or likewise known as pendulum-based torque converter. There are various mechanical designs utilized for constantly variable transmissions which can multiply torque. For example, the Variomatic is a version that has expanding pulleys and a belt drive.

A fluid coupling is a 2 element drive which could not multiply torque. A torque converter has an extra part which is the stator. This changes the drive's characteristics during occasions of high slippage and produces an increase in torque output.

Within a torque converter, there are a minimum of three rotating components: the turbine, so as to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator 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 situation and this is where the word stator starts from. In truth, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still enabling forward rotation.

Modifications to the basic three element design have been incorporated periodically. These adjustments have proven worthy specially in application where higher than normal torque multiplication is considered necessary. More often than not, these modifications have taken the form of multiple stators and turbines. Each and every set has been designed to produce differing amounts of torque multiplication. Various instances include the Dynaflo which makes use of a five element converter so as to produce 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 include a lock-up clutch in order to lessen 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 which eliminates losses associated with fluid drive.