

## Forklift Torque Converters

Forklift Torque Converters - A torque converter is actually a fluid coupling that is used so as 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 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 whenever there is a significant difference between output and input rotational speed.

The fluid coupling kind is actually the most popular type of torque converter used in auto transmissions. During the 1920's there were pendulum-based torque or otherwise called Constantinesco converter. There are various mechanical designs for constantly variable transmissions that can multiply torque. Like for example, the Variomatic is a type which has expanding pulleys and a belt drive.

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

Within a torque converter, there are at least of three rotating elements: the turbine, in order 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 can 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 whichever condition and this is where the term stator begins 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. Most commonly, these modifications have taken the form of various stators and turbines. Each set has been intended to produce differing amounts of torque multiplication. Several examples comprise the Dynaflo that utilizes a five element converter in order to produce the wide range of torque multiplication needed to propel a heavy vehicle.

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