

## Torque Converter for Forklift

Forklift Torque Converter - A torque converter in modern usage, is normally a fluid coupling which is used in order to transfer rotating power from a prime mover, for example an electric motor or an internal combustion engine, to a rotating driven load. Same as 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 provide 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 kind of torque converter utilized in car transmissions is the fluid coupling kind. During the 1920s there was even the Constantinesco or otherwise known as pendulum-based torque converter. There are other mechanical designs used for always variable transmissions that have the ability to multiply torque. For instance, the Variomatic is one type that has a belt drive and expanding pulleys.

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

Within a torque converter, there are at least of three rotating components: the turbine, so as to drive the load, the impeller that is driven mechanically driven by the prime mover and the stator. The stator is between the turbine and the impeller so that it could alter oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be stopped from rotating under any condition and this is where the term stator starts from. In truth, the stator is mounted on an overrunning clutch. This particular design prevents the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

Alterations to the basic three element design have been integrated periodically. These alterations have proven worthy specially in application where higher than normal torque multiplication is needed. More often than not, these alterations have taken the form of several stators and turbines. Every set has been meant to generate differing amounts of torque multiplication. Several examples consist of the Dynaflo that uses a five element converter in order to generate the wide range of torque multiplication required to propel a heavy vehicle.

Though it is not strictly a part of classic torque converter design, different automotive converters consist of a lock-up clutch in order to reduce heat and so as to enhance 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 associated with fluid drive.