

## Torque Converters for Forklift

Forklift Torque Converter - A torque converter in modern usage, is normally a fluid coupling that is used so as to transfer rotating power from a prime mover, like for example an internal combustion engine or an electrical motor, to a rotating driven load. Similar to a basic fluid coupling, the torque converter takes the place of a mechanized clutch. This enables the load to be separated from the main power source. A torque converter could offer the equivalent of a reduction gear by being able to multiply torque when 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 model. During the 1920s there was even the Constantinesco or also known as pendulum-based torque converter. There are different mechanical designs utilized for constantly variable transmissions which have the ability to multiply torque. For instance, the Variomatic is one kind that has expanding pulleys and a belt drive.

A fluid coupling is a 2 element drive that could not multiply torque. A torque converter has an additional element that is the stator. This changes the drive's characteristics throughout times of high slippage and produces an increase in torque output.

Within a torque converter, there are a minimum of three rotating parts: the turbine, in order 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. Usually, the design of the torque converter dictates that the stator be stopped from rotating under whatever condition and this is where the term stator originates from. In point of fact, 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 allowing forward rotation.

Modifications to the basic three element design have been incorporated periodically. These alterations have proven worthy specially in application where higher than normal torque multiplication is considered necessary. Usually, these alterations have taken the form of multiple turbines and stators. Each set has been intended to generate differing amounts of torque multiplication. Several instances include the Dynaflo which makes use of a five element converter to be able to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Various auto converters include a lock-up clutch in order to reduce heat and so as to enhance the cruising power and transmission effectiveness, even though it is not strictly component of the torque converter design. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical which eliminates losses connected with fluid drive.