

## Forklift Torque Converters

Torque Converter for Forklift - A torque converter is a fluid coupling that is utilized to be able 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 similar to a basic fluid coupling to take 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 whenever there is a considerable difference between output and input rotational speed.

The most popular type of torque converter used in automobile transmissions is the fluid coupling kind. In the 1920s there was even the Constantinesco or otherwise known as pendulum-based torque converter. There are other mechanical designs used for constantly variable transmissions which have the ability to multiply torque. For instance, the Variomatic is one kind that has a belt drive and expanding pulleys.

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

There are at least three rotating elements inside a torque converter: the turbine, that drives the load, the impeller, that is mechanically driven by the prime mover and the stator, that 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 term stator begins from. In point of fact, the stator is mounted on an overrunning clutch. This design prevents the stator from counter rotating with respect to the prime mover while still allowing forward rotation.

In the three element design there have been adjustments that have been incorporated sometimes. Where there is higher than normal torque manipulation is considered necessary, adjustments to the modifications have proven to be worthy. Usually, these adjustments have taken the form of several stators and turbines. Every set has been intended to generate differing amounts of torque multiplication. Several instances include the Dynaflo which utilizes a five element converter so as to generate the wide range of torque multiplication required to propel a heavy vehicle.

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