

## Forklift Torque Converters

Forklift Torque Converter - A torque converter in modern usage, is commonly a fluid coupling that is utilized to transfer rotating power from a prime mover, for instance an electric motor or an internal combustion engine, to a rotating driven load. Like 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 substantial difference between output and input rotational speed.

The most popular type of torque converter utilized in car transmissions is the fluid coupling unit. In the 1920s there was also the Constantinesco or otherwise known as pendulum-based torque converter. There are various mechanical designs for continuously changeable transmissions that have the ability to multiply torque. Like for instance, the Variomatic is a kind that 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 additional element which is the stator. This alters the drive's characteristics during occasions of high slippage and produces an increase in torque output.

In a torque converter, there are at least of three rotating components: the turbine, to be able 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. Usually, the design of the torque converter dictates that the stator be stopped from rotating under whichever condition and this is where the word stator begins from. Actually, the stator is mounted on an overrunning clutch. This design prevents the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

Adjustments to the basic three element design have been incorporated at times. These modifications have proven worthy especially in application where higher than normal torque multiplication is needed. Usually, these adjustments have taken the form of many turbines and stators. Each set has been designed to generate differing amounts of torque multiplication. Some examples comprise the Dynaflo which makes use of a five element converter in order to produce the wide range of torque multiplication required to propel a heavy vehicle.

Different auto converters include a lock-up clutch to be able to reduce heat and so as to improve 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 impeller to the turbine. This causes all power transmission to be mechanical which eliminates losses associated with fluid drive.