

## Forklift Torque Converters

Forklift Torque Converter - A torque converter is actually a fluid coupling which is utilized so as to transfer rotating power from a prime mover, which is an electric motor or an internal combustion engine, 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 offer the equivalent of a reduction gear by being able to multiply torque when there is a significant difference between output and input rotational speed.

The most popular type of torque converter utilized in car transmissions is the fluid coupling kind. In the 1920s there was also the Constantinesco or otherwise known as pendulum-based torque converter. There are different mechanical designs for always variable transmissions that can multiply torque. For instance, the Variomatic is a kind which has expanding pulleys and a belt drive.

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

Inside a torque converter, there are at least of three rotating elements: the turbine, so as to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator is between the impeller and the turbine 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 prevented from rotating under whichever condition and this is where the term stator begins from. In fact, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

In the three element design there have been modifications which have been incorporated periodically. Where there is higher than normal torque manipulation is needed, changes to the modifications have proven to be worthy. More often than not, these modifications have taken the form of multiple turbines and stators. Every set has been meant to generate differing amounts of torque multiplication. Various instances consist of the Dynaflo that makes use of a five element converter in order to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Different auto converters comprise a lock-up clutch so as to reduce heat and to be able to improve the cruising power and transmission effectiveness, 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 associated with fluid drive.