

## Torque Converters for Forklift

Forklift Torque Converter - A torque converter in modern usage, is commonly a fluid coupling that is used so as 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 enables the load to be separated from the main power source. A torque converter could provide 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 used in car transmissions is the fluid coupling unit. During the 1920s there was also the Constantinesco or likewise known as pendulum-based torque converter. There are different mechanical designs used for constantly changeable transmissions that could multiply torque. For example, 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 component which is the stator. This alters the drive's characteristics all through occasions of high slippage and produces an increase in torque output.

There are a minimum of three rotating elements in 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 impeller and the turbine so that it can alter oil flow returning from the turbine to the impeller. Normally, the design of the torque converter dictates that the stator be stopped from rotating under whatever condition 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.

Modifications to the basic three element design have been integrated periodically. These adjustments have proven worthy specially in application where higher than normal torque multiplication is required. Most commonly, these alterations have taken the form of several stators and turbines. Every set has been meant to produce differing amounts of torque multiplication. Various examples include the Dynaflo which uses a five element converter so as to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Even though it is not strictly a part of classic torque converter design, different automotive converters include a lock-up clutch to be able to reduce heat and to be able to improve cruising power transmission effectiveness. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical that eliminates losses related with fluid drive.