

## Torque Converters for Forklift

Torque Converters for Forklift - A torque converter is a fluid coupling that is used so as 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 like 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 could provide the equivalent of a reduction gear by being able to multiply torque when there is a substantial difference between input and output rotational speed.

The most popular type of torque converter utilized in car transmissions is the fluid coupling model. In the 1920s there was also the Constantinesco or also known as pendulum-based torque converter. There are other mechanical designs used for constantly variable transmissions that have the ability to multiply torque. Like for example, the Variomatic is a version that has expanding pulleys and a belt drive.

The 2 element drive fluid coupling could not multiply torque. Torque converters have an component called a stator. This changes the drive's characteristics through times of high slippage and produces an increase in torque output.

There are a minimum of three rotating components inside a torque converter: the turbine, which drives the load, the impeller, which is mechanically driven by the prime mover and the stator, which is between the turbine and the impeller 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 situation and this is where the word stator originates 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 enabling forward rotation.

Modifications to the basic three element design have been incorporated sometimes. These alterations have proven worthy particularly in application where higher than normal torque multiplication is considered necessary. More often than not, these modifications have taken the form of various stators and turbines. Each set has been intended to produce differing amounts of torque multiplication. Various examples comprise the Dynaflo that utilizes a five element converter to be able to generate the wide range of torque multiplication required to propel a heavy vehicle.

Although it is not strictly a component of classic torque converter design, various automotive converters comprise a lock-up clutch in order to lessen heat and in order to improve cruising power transmission efficiency. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical which eliminates losses related with fluid drive.