

## Forklift Torque Converters

Torque Converters for Forklifts - A torque converter is actually a fluid coupling that is utilized to transfer rotating power from a prime mover, that is an electric motor or an internal combustion engine, to a rotating driven load. The torque converter is like a basic fluid coupling to take the place of a mechanized clutch. This enables the load to be separated from the main power source. A torque converter could offer the equivalent of a reduction gear by being able to multiply torque if there is a significant difference between output and input rotational speed.

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

The 2 element drive fluid coupling cannot multiply torque. Torque converters have an element known as 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, that drives the load, the impeller, that is mechanically driven by the prime mover and the stator, which is between the turbine and the impeller so that it could alter oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be stopped from rotating under any situation and this is where the term stator starts from. In point of fact, the stator is mounted on an overrunning clutch. This particular design prevents the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

In the three element design there have been changes that have been incorporated periodically. Where there is higher than normal torque manipulation is needed, adjustments to the modifications have proven to be worthy. More often than not, these alterations have taken the form of several turbines and stators. Every set has been intended to produce differing amounts of torque multiplication. Some instances consist of the Dynaflow which utilizes a five element converter in order to produce the wide range of torque multiplication needed to propel a heavy vehicle.

Different automobile converters comprise a lock-up clutch so as to lessen heat and to enhance the cruising power and transmission effectiveness, although 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.