## Forklift Torque Converter

Forklift Torque Converter - A torque converter is actually a fluid coupling which is utilized in order 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 whenever there is a significant difference between output and input rotational speed.

The fluid coupling model is actually the most popular kind of torque converter utilized in car transmissions. In the 1920's there were pendulum-based torque or likewise called Constantinesco converter. There are other mechanical designs utilized for constantly variable transmissions which have the ability to multiply torque. Like for example, the Variomatic is one type which has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive that is incapable of multiplying torque. A torque converter has an additional part which is the stator. This changes the drive's characteristics through times of high slippage and generates an increase in torque output.

Within a torque converter, there are at least of three rotating components: the turbine, in order to drive the load, the impeller that is driven mechanically driven by the prime mover and the stator. The stator is between the turbine and the impeller so that it can 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 whichever condition and this is where the word stator begins from. In reality, the stator is mounted on an overrunning clutch. This particular design stops the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

Modifications to the basic three element design have been integrated periodically. These alterations have proven worthy particularly in application where higher than normal torque multiplication is needed. Usually, these adjustments have taken the form of many stators and turbines. Each set has been designed to produce differing amounts of torque multiplication. Various examples include the Dynaflow which utilizes a five element converter to be able to generate the wide range of torque multiplication required 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 lessen heat and to improve cruising power transmission efficiency. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical which eliminates losses related with fluid drive.