

## Forklift Torque Converters

Forklift Torque Converter - A torque converter is a fluid coupling that is utilized to be able 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 can provide the equivalent of a reduction gear by being able to multiply torque when there is a considerable difference between input and output rotational speed.

The fluid coupling type is actually the most common kind of torque converter utilized in car transmissions. During the 1920's there were pendulum-based torque or otherwise called Constantinesco converter. There are other mechanical designs for always variable transmissions that have the ability to multiply torque. For instance, the Variomatic is one type that has a belt drive and expanding pulleys.

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an element called a stator. This alters the drive's characteristics throughout occasions of high slippage and generates an increase in torque output.

Within a torque converter, there are a minimum of three rotating parts: the turbine, 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 alter oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be prevented from rotating under whichever condition and this is where the word stator originates from. Actually, 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 at times. These modifications have proven worthy specially in application where higher than normal torque multiplication is required. Usually, these modifications have taken the form of many stators and turbines. Each set has been designed to generate differing amounts of torque multiplication. Some instances consist of the Dynaflo which uses a five element converter so as to produce the wide range of torque multiplication required to propel a heavy vehicle.

Different car converters include a lock-up clutch in order to reduce heat and to improve the cruising power and transmission effectiveness, although 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 that eliminates losses related with fluid drive.