

## Torque Converter for Forklift

Forklift Torque Converter - A torque converter in modern usage, is normally a fluid coupling which is utilized so as to transfer rotating power from a prime mover, like for example an internal combustion engine or an electrical motor, to a rotating driven load. Similar to 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 substantial difference between output and input rotational speed.

The most popular type of torque converter utilized in auto transmissions is the fluid coupling model. During the 1920s there was even the Constantinesco or likewise known as pendulum-based torque converter. There are other mechanical designs utilized for constantly changeable transmissions which can multiply torque. Like for example, the Variomatic is one kind that has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive which cannot multiply torque. A torque converter has an extra element which is the stator. This alters the drive's characteristics during times of high slippage and generates an increase in torque output.

Inside a torque converter, there are at least of three rotating components: the turbine, so as 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. Normally, the design of the torque converter dictates that the stator be stopped from rotating under any situation and this is where the term stator originates from. Actually, 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 enabling forward rotation.

Modifications to the basic three element design have been integrated periodically. These adjustments have proven worthy especially in application where higher than normal torque multiplication is needed. Most commonly, these alterations have taken the form of various stators and turbines. Each set has been meant to generate differing amounts of torque multiplication. Several instances include the Dynaflo which uses a five element converter to be able to produce the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Different automobile converters include a lock-up clutch in order to lessen heat and to be able to enhance the cruising power and transmission effectiveness, though 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 that eliminates losses associated with fluid drive.