

## Torque Converter for Forklifts

Torque Converters for Forklifts - A torque converter is a fluid coupling which is used to be able to transfer rotating power from a prime mover, which is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is similar to a basic fluid coupling to take the place of a mechanical 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 if there is a considerable difference between input and output rotational speed.

The fluid coupling unit is actually the most popular type of torque converter used in car transmissions. In the 1920's there were pendulum-based torque or likewise called Constantinesco converter. There are various mechanical designs utilized for constantly changeable transmissions which can multiply torque. For instance, the Variomatic is a kind that has expanding pulleys and a belt drive.

The 2 element drive fluid coupling cannot multiply torque. Torque converters have an component referred to as a stator. This alters the drive's characteristics all through times of high slippage and produces an increase in torque output.

Within a torque converter, there are at least of three rotating elements: 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 stopped from rotating under whatever condition and this is where the word 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 enabling forward rotation.

Changes to the basic three element design have been incorporated at times. These alterations have proven worthy particularly in application where higher than normal torque multiplication is required. Most commonly, these adjustments have taken the form of various turbines and stators. Every set has been designed to produce differing amounts of torque multiplication. Several examples comprise the Dynaflo which uses a five element converter so as to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

While it is not strictly a component of classic torque converter design, various automotive converters include a lock-up clutch to lessen heat and to be able to enhance 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 associated with fluid drive.