

## Torque Converter for Forklift

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

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

A fluid coupling is a 2 element drive that could not multiply torque. A torque converter has an additional element which is the stator. This alters the drive's characteristics through times of high slippage and generates an increase in torque output.

In a torque converter, there are a minimum of three rotating elements: the turbine, to be able to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator is between the turbine and the impeller so that it can change oil flow returning from the turbine to the impeller. Normally, the design of the torque converter dictates that the stator be prevented from rotating under whatever situation and this is where the term stator starts from. Actually, 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 allowing forward rotation.

In the three element design there have been adjustments that have been incorporated sometimes. Where there is higher than normal torque manipulation is considered necessary, modifications to the modifications have proven to be worthy. Most commonly, these modifications have taken the form of multiple turbines and stators. Each and every set has been intended to produce differing amounts of torque multiplication. Some instances comprise the Dynaflow that uses a five element converter in order to generate the wide range of torque multiplication needed 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 in order to reduce heat and to be able to improve cruising power transmission efficiency. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical that eliminates losses connected with fluid drive.