

Forklift Torque Converter

Torque Converter for Forklift - A torque converter in modern usage, is normally a fluid coupling which is utilized to transfer rotating power from a prime mover, like for instance an internal combustion engine or an electrical motor, to a rotating driven load. Like a basic fluid coupling, the torque converter takes the place of a mechanical clutch. This allows the load to be separated from the main power source. A torque converter could offer the equivalent of a reduction gear by being able to multiply torque whenever there is a substantial difference between input and output rotational speed.

The fluid coupling unit is the most common type of torque converter used in car transmissions. In the 1920's there were pendulum-based torque or otherwise called Constantinesco converter. There are different mechanical designs for continuously changeable transmissions that have the ability to multiply torque. For example, the Variomatic is a version that has a belt drive and expanding pulleys.

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an part called a stator. This changes the drive's characteristics all through occasions of high slippage and produces an increase in torque output.

There are a minimum of three rotating elements within a torque converter: the turbine, which drives the load, the impeller, that is mechanically driven by the prime mover and the stator, that is between the turbine and the impeller so that it could change oil flow returning from the turbine to the impeller. Usually, the design of the torque converter dictates that the stator be stopped from rotating under any condition and this is where the term stator originates from. In truth, 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 allowing forward rotation.

Modifications to the basic three element design have been integrated periodically. These adjustments have proven worthy specially in application where higher than normal torque multiplication is needed. Usually, these adjustments have taken the form of several turbines and stators. Each and every set has been meant to produce differing amounts of torque multiplication. Some instances comprise the Dynaflo which uses a five element converter in order to generate the wide range of torque multiplication needed to propel a heavy vehicle.

Even though it is not strictly a part of classic torque converter design, different automotive converters comprise a lock-up clutch to be able to reduce heat and to be able 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 associated with fluid drive.