Forklift Torque Converter

Forklift Torque Converters - A torque converter is a fluid coupling which is used to transfer rotating power from a prime mover, that 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 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 whenever there is a considerable difference between input and output rotational speed.

The fluid coupling kind is the most popular type of torque converter used in auto transmissions. During the 1920's there were pendulum-based torque or otherwise called Constantinesco converter. There are other mechanical designs for always variable transmissions which can multiply torque. Like for instance, the Variomatic is a version which has a belt drive and expanding pulleys.

The 2 element drive fluid coupling could not multiply torque. Torque converters have an part referred to as a stator. This changes the drive's characteristics during times of high slippage and generates an increase in torque output.

Within a torque converter, there are at least 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 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 begins from. In point of fact, 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.

Changes to the basic three element design have been incorporated at times. These modifications have proven worthy especially in application where higher than normal torque multiplication is needed. Usually, these modifications have taken the form of many stators and turbines. Every set has been meant to produce differing amounts of torque multiplication. Some examples consist of the Dynaflow which makes use of a five element converter so as to produce the wide range of torque multiplication required to propel a heavy vehicle.

Different auto converters comprise a lock-up clutch so as to lessen heat and so as to enhance the cruising power and transmission effectiveness, although it is not strictly part of the torque converter design. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical which eliminates losses related with fluid drive.