Torque Converter for Forklift

Torque Converters for Forklift - A torque converter is a fluid coupling that is utilized in order 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 same as a basic fluid coupling to take the place of a mechanical 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 when there is a considerable difference between input and output rotational speed.

The most popular type of torque converter utilized in auto transmissions is the fluid coupling unit. During the 1920s there was also the Constantinesco or likewise known as pendulum-based torque converter. There are different mechanical designs utilized for always changeable transmissions which have the ability to multiply torque. Like for instance, the Variomatic is a version which has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive which could not multiply torque. A torque converter has an extra element that is the stator. This changes the drive's characteristics throughout occasions of high slippage and produces an increase in torque output.

In a torque converter, there are at least of three rotating components: the turbine, so as to drive the load, the impeller that 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 stopped from rotating under any situation and this is where the term stator originates from. In truth, the stator is mounted on an overrunning clutch. This design prevents the stator from counter rotating with respect to the prime mover while still allowing forward rotation.

Alterations to the basic three element design have been incorporated sometimes. These alterations have proven worthy particularly in application where higher than normal torque multiplication is considered necessary. More often than not, these modifications have taken the form of various stators and turbines. Every set has been intended to generate differing amounts of torque multiplication. Several examples consist of the Dynaflow which uses a five element converter to be able to produce the wide range of torque multiplication required to propel a heavy vehicle.

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