

Forklift Torque Converters

Torque Converters for Forklift - A torque converter is a fluid coupling that is used to be able 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 like 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 when there is a substantial difference between output and input rotational speed.

The most popular kind of torque converter used in automobile transmissions is the fluid coupling kind. In the 1920s there was likewise the Constantinesco or likewise known as pendulum-based torque converter. There are various mechanical designs used for always variable transmissions that have the ability to multiply torque. For instance, the Variomatic is one version which has expanding pulleys and a belt drive.

A fluid coupling is a 2 element drive which is incapable of multiplying torque. A torque converter has an extra component that is the stator. This changes the drive's characteristics all through occasions 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 be able 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 alter 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 any situation and this is where the word stator starts from. Actually, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still enabling forward rotation.

Alterations 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 considered necessary. Most commonly, these adjustments have taken the form of many turbines and stators. Every set has been designed to generate differing amounts of torque multiplication. Several instances comprise the Dynaflo that uses a five element converter in order to generate the wide range of torque multiplication needed to propel a heavy vehicle.

Various car converters consist of a lock-up clutch to reduce heat and in order to improve the cruising power and transmission effectiveness, even if 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 connected with fluid drive.