

Torque Converter for Forklift

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

The fluid coupling kind is the most common type of torque converter used in auto transmissions. In the 1920's there were pendulum-based torque or otherwise called Constantinesco converter. There are other mechanical designs utilized for always variable transmissions that could multiply torque. For example, the Variomatic is a kind which has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive which cannot multiply torque. A torque converter has an extra element which is the stator. This changes the drive's characteristics all through occasions of high slippage and generates an increase in torque output.

Within a torque converter, there are at least of three rotating parts: the turbine, in order to drive the load, the impeller that is driven mechanically driven by the prime mover and the stator. The stator is between the impeller and the turbine so that it can change oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be stopped from rotating under whichever condition and this is where the word stator starts from. In truth, 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 permitting forward rotation.

In the three element design there have been adjustments that have been integrated sometimes. Where there is higher than normal torque manipulation is needed, changes to the modifications have proven to be worthy. Most commonly, these adjustments have taken the form of many stators and turbines. Each set has been intended to produce differing amounts of torque multiplication. Several examples consist of the Dynaflo that utilizes a five element converter in order to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Different car converters comprise a lock-up clutch in order to reduce heat and in order to enhance the cruising power and transmission efficiency, even though 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.