

Torque Converters for Forklift

Torque Converters for Forklift - A torque converter in modern usage, is commonly a fluid coupling which is utilized so as to transfer rotating power from a prime mover, for example 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 mechanized 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 significant difference between output and input rotational speed.

The fluid coupling model is actually 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 different mechanical designs for continuously variable transmissions that have the ability to multiply torque. Like for instance, the Variomatic is a kind which has a belt drive and expanding pulleys.

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an component referred to as a stator. This alters the drive's characteristics through occasions of high slippage and generates an increase in torque output.

There are at least three rotating parts in a torque converter: the turbine, that drives the load, the impeller, that is mechanically driven by the prime mover and the stator, that is between the impeller and the turbine so that it could 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. In point of fact, 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 enabling forward rotation.

In the three element design there have been modifications that have been integrated at times. Where there is higher than normal torque manipulation is required, alterations to the modifications have proven to be worthy. Most commonly, these alterations have taken the form of many turbines and stators. Every set has been intended to produce differing amounts of torque multiplication. Some 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.

Even though it is not strictly a part of classic torque converter design, different automotive converters include a lock-up clutch to lessen heat and so as to improve cruising power transmission effectiveness. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical that eliminates losses connected with fluid drive.