Torque Converters for Forklift

Forklift Torque Converters - A torque converter in modern usage, is usually a fluid coupling which is used so as to transfer rotating power from a prime mover, like 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 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 if there is a considerable difference between output and input rotational speed.

The most popular type of torque converter used in automobile transmissions is the fluid coupling unit. During the 1920s there was likewise the Constantinesco or pendulum-based torque converter. There are different mechanical designs for continuously changeable transmissions which can multiply torque. Like for instance, the Variomatic is one kind that has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive that is incapable of multiplying torque. A torque converter has an extra component which is the stator. This changes the drive's characteristics during occasions of high slippage and produces an increase in torque output.

Inside a torque converter, there are a minimum of three rotating elements: the turbine, so as 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. Usually, the design of the torque converter dictates that the stator be stopped from rotating under whatever condition and this is where the term stator begins from. In point of fact, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

In the three element design there have been alterations which have been incorporated periodically. Where there is higher than normal torque manipulation is required, changes to the modifications have proven to be worthy. Most commonly, these adjustments have taken the form of several turbines and stators. Each set has been designed to generate differing amounts of torque multiplication. Several instances consist of the Dynaflow which utilizes a five element converter so as to produce the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Various car converters comprise a lock-up clutch to be able to lessen heat and to be able to improve the cruising power and transmission effectiveness, 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 that eliminates losses connected with fluid drive.