Torque Converter for Forklift

Torque Converter for Forklifts - A torque converter in modern usage, is commonly a fluid coupling that 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. Similar to 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 when there is a significant difference between output and input rotational speed.

The most popular type of torque converter utilized in car transmissions is the fluid coupling model. In the 1920s there was likewise the Constantinesco or likewise known as pendulum-based torque converter. There are various mechanical designs used for constantly changeable transmissions that could multiply torque. For example, the Variomatic is one kind that has a belt drive and expanding pulleys.

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an part called a stator. This changes the drive's characteristics during occasions of high slippage and generates an increase in torque output.

There are a minimum of three rotating parts within a torque converter: the turbine, which drives the load, the impeller, which is mechanically driven by the prime mover and the stator, that is between the turbine and the impeller so that it could 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 whichever condition and this is where the term stator starts from. In truth, 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 modifications that have been integrated at times. Where there is higher than normal torque manipulation is considered necessary, changes to the modifications have proven to be worthy. More often than not, these alterations have taken the form of several stators and turbines. Every set has been meant to generate differing amounts of torque multiplication. Some examples comprise the Dynaflow that uses a five element converter so as to produce the wide range of torque multiplication needed to propel a heavy vehicle.

Although it is not strictly a component of classic torque converter design, various automotive converters include a lock-up clutch so as to reduce heat and so as to enhance cruising power transmission efficiency. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical that eliminates losses related with fluid drive.