

Forklift Torque Converter

Forklift Torque Converter - A torque converter in modern usage, is normally a fluid coupling that is utilized to transfer rotating power from a prime mover, for instance an electric motor or an internal combustion engine, to a rotating driven load. Same as a basic fluid coupling, the torque converter takes the place of a mechanized clutch. This enables the load to be separated from the main power source. A torque converter can provide the equivalent of a reduction gear by being able to multiply torque if there is a considerable difference between input and output rotational speed.

The fluid coupling type is actually the most common type of torque converter utilized in car transmissions. In the 1920's there were pendulum-based torque or also called Constantinesco converter. There are different mechanical designs for constantly changeable transmissions that could multiply torque. Like for example, 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 part called a stator. This changes the drive's characteristics throughout times of high slippage and generates an increase in torque output.

Within a torque converter, there are a minimum of three rotating elements: the turbine, 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 prevented from rotating under whichever situation and this is where the term stator begins from. In point of fact, the stator is mounted on an overrunning clutch. This 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 modifications which have been incorporated sometimes. Where there is higher than normal torque manipulation is required, adjustments to the modifications have proven to be worthy. Most commonly, these adjustments have taken the form of multiple stators and turbines. Every set has been meant to generate differing amounts of torque multiplication. Some instances consist of the Dynaflo which uses a five element converter so as to produce the wide range of torque multiplication needed to propel a heavy vehicle.

Various car converters comprise a lock-up clutch to lessen heat and in order 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 impeller to the turbine. This causes all power transmission to be mechanical that eliminates losses related with fluid drive.