

Forklift Torque Converter

Torque Converters for Forklifts - A torque converter is a fluid coupling that is utilized in order to transfer rotating power from a prime mover, which is an electric motor or an internal combustion engine, to a rotating driven load. The torque converter is similar to a basic fluid coupling to take 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 considerable difference between input and output rotational speed.

The fluid coupling model is actually the most common kind of torque converter utilized in car transmissions. During the 1920's there were pendulum-based torque or otherwise called Constantinesco converter. There are different mechanical designs for continuously changeable transmissions that have the ability to multiply torque. Like for instance, the Variomatic is a kind which has a belt drive and expanding pulleys.

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

Within a torque converter, there are at least of three rotating parts: the turbine, to be able to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator is between the impeller and the turbine 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 any 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 enabling 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. More often than not, these alterations have taken the form of various stators and turbines. Each set has been designed to produce differing amounts of torque multiplication. Some examples include the Dynaflow which utilizes a five element converter so as to generate the wide range of torque multiplication required to propel a heavy vehicle.

Different car converters include a lock-up clutch so as to lessen heat and in order to improve the cruising power and transmission effectiveness, even if 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.