

Torque Converter for Forklift

Torque Converter for Forklift - A torque converter is actually a fluid coupling which is utilized so as 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 like a basic fluid coupling to take the place of a mechanized clutch. This enables 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 substantial difference between output and input rotational speed.

The most popular kind of torque converter used in automobile transmissions is the fluid coupling model. In the 1920s there was likewise the Constantinesco or otherwise known as pendulum-based torque converter. There are other mechanical designs used for continuously variable transmissions which have the ability to multiply torque. For instance, the Variomatic is one kind that has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive that could not multiply torque. A torque converter has an added part that is the stator. This changes the drive's characteristics through occasions of high slippage and generates an increase in torque output.

In a torque converter, there are a minimum of three rotating components: 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 change oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be prevented from rotating under whichever situation and this is where the word stator originates from. Actually, 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 alterations that have been integrated at times. Where there is higher than normal torque manipulation is required, modifications to the modifications have proven to be worthy. More often than not, these adjustments have taken the form of multiple stators and turbines. Every set has been meant to produce differing amounts of torque multiplication. Several instances consist of the Dynaflo which makes use of a five element converter in order to generate the wide range of torque multiplication required to propel a heavy vehicle.

Different auto converters include a lock-up clutch to be able to reduce heat and in order to improve the cruising power and transmission efficiency, 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 associated with fluid drive.