

Forklift Torque Converters

Torque Converter for Forklift - A torque converter in modern usage, is usually a fluid coupling that is used to transfer rotating power from a prime mover, like for instance an internal combustion engine or an electrical motor, 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 whenever there is a significant difference between input and output rotational speed.

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

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an element called a stator. This alters the drive's characteristics all through occasions of high slippage and produces an increase in torque output.

There are at least three rotating components within a torque converter: the turbine, which drives the load, the impeller, that is mechanically driven by the prime mover and the stator, which is between the impeller and the turbine so that it can alter 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 term stator originates 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 enabling forward rotation.

In the three element design there have been alterations which have been integrated sometimes. Where there is higher than normal torque manipulation is required, alterations to the modifications have proven to be worthy. Usually, these alterations have taken the form of many stators and turbines. Each and every set has been meant to produce differing amounts of torque multiplication. Some examples consist of the Dynaflo which utilizes a five element converter to be able to generate the wide range of torque multiplication required to propel a heavy vehicle.

Different auto converters include a lock-up clutch so as to lessen heat and so as to enhance the cruising power and transmission efficiency, 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 connected with fluid drive.