

Forklift Torque Converters

Forklift Torque Converter - A torque converter in modern usage, is usually a fluid coupling which is utilized to be able 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 mechanical 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 fluid coupling model is the most popular type of torque converter used in auto transmissions. During the 1920's there were pendulum-based torque or Constantinesco converter. There are different mechanical designs for always variable transmissions that can multiply torque. For example, the Variomatic is a version which has a belt drive and expanding pulleys.

The 2 element drive fluid coupling cannot multiply torque. Torque converters have an component known as a stator. This changes the drive's characteristics all through occasions of high slippage and generates an increase in torque output.

Within a torque converter, there are a minimum 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 could change oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be stopped from rotating under whatever situation and this is where the word stator starts from. In point of fact, 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 permitting forward rotation.

Adjustments to the basic three element design have been integrated periodically. These changes have proven worthy particularly in application where higher than normal torque multiplication is required. More often than not, these alterations have taken the form of multiple stators and turbines. Each set has been meant to produce differing amounts of torque multiplication. Several instances consist of the Dynaflo that uses a five element converter to be able to produce the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Different automobile converters comprise a lock-up clutch to lessen heat and to be able to enhance 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 impeller to the turbine. This causes all power transmission to be mechanical which eliminates losses related with fluid drive.