Torque Converter for Forklifts

Torque Converter for Forklift - A torque converter is a fluid coupling which is used to be able to transfer rotating power from a prime mover, which is an internal combustion engine or as electrical motor, 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 can provide the equivalent of a reduction gear by being able to multiply torque if there is a substantial difference between input and output rotational speed.

The most common type of torque converter used in automobile transmissions is the fluid coupling type. During the 1920s there was even the Constantinesco or otherwise known as pendulum-based torque converter. There are other mechanical designs used for always changeable transmissions that can multiply torque. Like for example, the Variomatic is one version 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 extra component which is the stator. This alters the drive's characteristics all through occasions of high slippage and produces an increase in torque output.

There are a minimum of three rotating elements in 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 turbine and the impeller so that it can change 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 any condition and this is where the word stator begins from. In 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.

Alterations to the basic three element design have been integrated sometimes. These adjustments have proven worthy specially in application where higher than normal torque multiplication is needed. More often than not, these alterations have taken the form of many turbines and stators. Each and every set has been intended to generate differing amounts of torque multiplication. Various examples include the Dynaflow that makes use of a five element converter to be able to generate the wide range of torque multiplication required to propel a heavy vehicle.

Different auto converters comprise a lock-up clutch in order to reduce heat and in order to enhance the cruising power and transmission effectiveness, even if it is not strictly component 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.