Torque Converter for Forklift

Torque Converter for Forklifts - A torque converter is a fluid coupling that is utilized in order to transfer rotating power from a prime mover, that is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is similar to a basic fluid coupling to take the place of a mechanical 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 if there is a considerable difference between output and input rotational speed.

The most common type of torque converter used in car transmissions is the fluid coupling model. During the 1920s there was likewise the Constantinesco or pendulum-based torque converter. There are other mechanical designs utilized for always variable transmissions which can multiply torque. For instance, the Variomatic is one version which has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive that cannot multiply torque. A torque converter has an extra part which is the stator. This changes the drive's characteristics during times of high slippage and generates an increase in torque output.

Within a torque converter, there are at least of three rotating elements: 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 turbine and the impeller 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 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 particular 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 that have been integrated sometimes. Where there is higher than normal torque manipulation is required, changes to the modifications have proven to be worthy. More often than not, these modifications have taken the form of multiple turbines and stators. Each and every set has been meant to generate differing amounts of torque multiplication. Various instances comprise the Dynaflow which utilizes a five element converter to be able to produce the wide range of torque multiplication required to propel a heavy vehicle.

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