Forklift Torque Converter

Forklift Torque Converter - A torque converter is actually a fluid coupling that is utilized to be able 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 same as 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 when there is a considerable difference between input and output rotational speed.

The most common kind of torque converter utilized in auto transmissions is the fluid coupling type. In the 1920s there was also the Constantinesco or otherwise known as pendulum-based torque converter. There are different mechanical designs used for always changeable transmissions which can multiply torque. For example, the Variomatic is one type which has expanding pulleys and a belt drive.

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

Inside a torque converter, there are a minimum of three rotating components: the turbine, in order to drive the load, the impeller that 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. Usually, the design of the torque converter dictates that the stator be stopped from rotating under whichever situation and this is where the word stator originates from. In reality, 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.

In the three element design there have been alterations which have been integrated periodically. Where there is higher than normal torque manipulation is needed, changes to the modifications have proven to be worthy. More often than not, these alterations have taken the form of several turbines and stators. Each set has been intended to produce differing amounts of torque multiplication. Several instances comprise the Dynaflow that makes use of a five element converter to be able to generate the wide range of torque multiplication needed to propel a heavy vehicle.

Different auto converters comprise a lock-up clutch to be able to reduce heat and to be able to enhance the cruising power and transmission efficiency, even 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 that eliminates losses associated with fluid drive.