Forklift Torque Converter

Forklift Torque Converter - A torque converter is actually a fluid coupling which is used 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 mechanized 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 most common type of torque converter used in auto transmissions is the fluid coupling model. In the 1920s there was also the Constantinesco or also known as pendulum-based torque converter. There are different mechanical designs utilized for continuously variable transmissions which could multiply torque. Like for instance, the Variomatic is one version that has a belt drive and expanding pulleys.

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

Within a torque converter, there are at least of three rotating components: 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 could alter oil flow returning from the turbine to the impeller. Normally, the design of the torque converter dictates that the stator be prevented from rotating under whatever situation and this is where the word stator starts from. Actually, 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 adjustments that have been incorporated at times. Where there is higher than normal torque manipulation is required, modifications to the modifications have proven to be worthy. More often than not, these alterations have taken the form of various stators and turbines. Each and every set has been designed to generate differing amounts of torque multiplication. Some examples comprise the Dynaflow which makes use of a five element converter so as to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Even though it is not strictly a part of classic torque converter design, various automotive converters comprise a lock-up clutch in order to reduce heat and to be able to enhance cruising power transmission effectiveness. 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.