Forklift Torque Converter

Forklift Torque Converters - A torque converter is actually a fluid coupling that is utilized so as to transfer rotating power from a prime mover, that is an electric motor or an internal combustion engine, 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 can offer the equivalent of a reduction gear by being able to multiply torque if there is a considerable difference between input and output 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 likewise called Constantinesco converter. There are various mechanical designs used for always changeable transmissions which could multiply torque. Like for instance, the Variomatic is a kind that has expanding pulleys and a belt drive.

A fluid coupling is a 2 element drive that is incapable of multiplying torque. A torque converter has an additional part that is the stator. This alters the drive's characteristics through occasions of high slippage and generates an increase in torque output.

In a torque converter, there are a minimum of three rotating parts: the turbine, in order 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 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 any condition and this is where the term stator originates from. In truth, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

In the three element design there have been modifications that have been integrated periodically. Where there is higher than normal torque manipulation is considered necessary, changes to the modifications have proven to be worthy. Usually, these alterations have taken the form of various stators and turbines. Every set has been designed to generate differing amounts of torque multiplication. Some instances consist of the Dynaflow that makes use of a five element converter to be able to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

While it is not strictly a part of classic torque converter design, different automotive converters include a lock-up clutch so as to reduce heat and in order to improve cruising power transmission efficiency. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical which eliminates losses connected with fluid drive.