

Forklift Torque Converter

Forklift Torque Converter - A torque converter is a fluid coupling which 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 whenever there is a considerable difference between input and output rotational speed.

The fluid coupling model is the most popular type of torque converter utilized in auto transmissions. During the 1920's there were pendulum-based torque or Constantinesco converter. There are different mechanical designs used for always changeable transmissions that could multiply torque. Like for instance, the Variomatic is a kind which 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 during occasions of high slippage and produces an increase in torque output.

Inside a torque converter, there are at least of three rotating elements: the turbine, so as to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator is between the impeller and the turbine so that it could alter 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 situation and this is where the word stator begins from. Actually, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still allowing forward rotation.

In the three element design there have been changes which have been incorporated periodically. Where there is higher than normal torque manipulation is considered necessary, changes to the modifications have proven to be worthy. More often than not, these alterations have taken the form of several stators and turbines. Each and every set has been intended to generate differing amounts of torque multiplication. Some examples consist of the Dynaflo that utilizes a five element converter so as to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Various automobile converters comprise a lock-up clutch in order to lessen heat and to be able to improve 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 which eliminates losses connected with fluid drive.