

Forklift Torque Converters

Torque Converter for Forklifts - A torque converter is a fluid coupling which is utilized 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 similar to a basic fluid coupling to take the place of a mechanical clutch. This allows 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 significant difference between input and output rotational speed.

The fluid coupling unit is actually the most popular type of torque converter used in car transmissions. In the 1920's there were pendulum-based torque or likewise called Constantinesco converter. There are other mechanical designs utilized for constantly changeable transmissions that can multiply torque. Like for instance, the Variomatic is one type 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 all through times of high slippage and generates an increase in torque output.

Inside a torque converter, there are at least 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 alter oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be prevented from rotating under whatever condition and this is where the word stator begins from. Actually, 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 allowing forward rotation.

In the three element design there have been changes which have been incorporated at times. Where there is higher than normal torque manipulation is required, modifications to the modifications have proven to be worthy. Usually, these adjustments have taken the form of many turbines and stators. Each and every set has been intended to produce differing amounts of torque multiplication. Several examples include the Dynaflo which makes use of a five element converter to be able to produce the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Different auto converters consist of a lock-up clutch so as to reduce heat and so as to enhance the cruising power and transmission efficiency, though 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.