

Forklift Torque Converter

Torque Converter for Forklifts - A torque converter is a fluid coupling which is used in order to transfer rotating power from a prime mover, which 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 allows the load to be separated from the main power source. A torque converter can provide 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 type of torque converter utilized in automobile transmissions is the fluid coupling type. In the 1920s there was likewise the Constantinesco or also known as pendulum-based torque converter. There are various mechanical designs for continuously variable transmissions which have the ability to multiply torque. Like for instance, the Variomatic is one type that has expanding pulleys and a belt drive.

The 2 element drive fluid coupling could not multiply torque. Torque converters have an component known as a stator. This changes the drive's characteristics all through times of high slippage and produces an increase in torque output.

Within a torque converter, there are at least of three rotating parts: 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 turbine and the impeller so that it can 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 any condition and this is where the term 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 needed, modifications to the modifications have proven to be worthy. Usually, these alterations have taken the form of many turbines and stators. Each and every set has been designed to produce differing amounts of torque multiplication. Several examples include the Dynaflo that utilizes a five element converter so as to produce the wide range of torque multiplication required to propel a heavy vehicle.

Different automobile converters consist of a lock-up clutch to be able to lessen heat and to improve the cruising power and transmission efficiency, even if it is not strictly component 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 related with fluid drive.