

Forklift Torque Converter

Forklift Torque Converter - A torque converter is actually a fluid coupling that is utilized in order to transfer rotating power from a prime mover, which is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is like 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 could provide 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 most popular kind of torque converter used in auto transmissions is the fluid coupling unit. In the 1920s there was likewise the Constantinesco or likewise known as pendulum-based torque converter. There are various mechanical designs utilized for constantly changeable transmissions that can multiply torque. For instance, the Variomatic is one kind that has expanding pulleys and a belt drive.

A fluid coupling is a 2 element drive that cannot multiply torque. A torque converter has an additional element which is the stator. This alters the drive's characteristics through occasions of high slippage and generates an increase in torque output.

There are a minimum of three rotating components in a torque converter: the turbine, that drives the load, the impeller, which is mechanically driven by the prime mover and the stator, that is between the impeller and the turbine so that it could 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 situation and this is where the term stator starts from. In point of fact, 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 enabling forward rotation.

In the three element design there have been changes that have been integrated at times. Where there is higher than normal torque manipulation is required, changes to the modifications have proven to be worthy. More often than not, these modifications have taken the form of several turbines and stators. Every set has been designed to generate differing amounts of torque multiplication. Several examples include the Dynaflo that makes use of a five element converter in order to produce the wide range of torque multiplication needed to propel a heavy vehicle.

Different car converters comprise a lock-up clutch in order to reduce heat and in order to improve the cruising power and transmission efficiency, even if it is not strictly part 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 associated with fluid drive.