

Forklift Torque Converter

Torque Converters for Forklift - A torque converter is a fluid coupling that is used 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 provide the equivalent of a reduction gear by being able to multiply torque if there is a substantial difference between input and output rotational speed.

The fluid coupling model is actually the most popular type of torque converter utilized in car transmissions. During the 1920's there were pendulum-based torque or likewise called Constantinesco converter. There are different mechanical designs for always variable transmissions that have the ability to multiply torque. For instance, the Variomatic is one version that has a belt drive and expanding pulleys.

The 2 element drive fluid coupling cannot multiply torque. Torque converters have an component called a stator. This alters the drive's characteristics through occasions of high slippage and generates an increase in torque output.

Within a torque converter, there are a minimum 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. Normally, 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 truth, 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 permitting forward rotation.

In the three element design there have been modifications which have been integrated at times. Where there is higher than normal torque manipulation is needed, modifications to the modifications have proven to be worthy. Most commonly, these adjustments have taken the form of several stators and turbines. Every set has been designed to produce differing amounts of torque multiplication. Various instances consist of the Dynaflo which uses a five element converter in order to generate the wide range of torque multiplication required to propel a heavy vehicle.

Different car converters consist of a lock-up clutch to reduce heat and in order to enhance the cruising power and transmission effectiveness, 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 that eliminates losses associated with fluid drive.