Torque Converters for Forklift

Forklift Torque Converters - A torque converter in modern usage, is commonly a fluid coupling that is used so as to transfer rotating power from a prime mover, for example an electric motor or an internal combustion engine, to a rotating driven load. Similar to a basic fluid coupling, the torque converter takes the place of a mechanized 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 output and input rotational speed.

The most common type of torque converter utilized in auto transmissions is the fluid coupling type. In the 1920s there was likewise the Constantinesco or also known as pendulum-based torque converter. There are other mechanical designs for always variable transmissions which have the ability to multiply torque. For example, the Variomatic is one kind which has expanding pulleys and a belt drive.

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

There are a at least three rotating elements in a torque converter: the turbine, that drives the load, the impeller, which is mechanically driven by the prime mover and the stator, which is between the turbine and the impeller 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 stopped from rotating under any situation and this is where the term stator originates from. In point of fact, the stator is mounted on an overrunning clutch. This design stops 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 sometimes. Where there is higher than normal torque manipulation is considered necessary, alterations to the modifications have proven to be worthy. Most commonly, these alterations have taken the form of several stators and turbines. Each and every set has been meant to generate differing amounts of torque multiplication. Several instances comprise the Dynaflow which utilizes a five element converter so as to produce the wide range of torque multiplication needed to propel a heavy vehicle.

Even though it is not strictly a part of classic torque converter design, different automotive converters consist of a lock-up clutch in order to lessen heat and to enhance cruising power transmission effectiveness. 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.