Torque Converter for Forklift

Torque Converters for Forklifts - A torque converter in modern usage, is usually a fluid coupling which is utilized to transfer rotating power from a prime mover, like for example an internal combustion engine or an electrical motor, to a rotating driven load. Similar to a basic fluid coupling, the torque converter takes 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 substantial difference between output and input rotational speed.

The most popular kind of torque converter used in automobile transmissions is the fluid coupling type. During the 1920s there was even the Constantinesco or likewise known as pendulum-based torque converter. There are other mechanical designs used for continuously variable transmissions which have the ability to multiply torque. Like for example, the Variomatic is a type which has expanding pulleys and a belt drive.

A fluid coupling is a 2 element drive which is incapable of multiplying torque. A torque converter has an additional element that is the stator. This changes the drive's characteristics all through occasions of high slippage and produces an increase in torque output.

There are a minimum of three rotating components inside a torque converter: the turbine, which drives the load, the impeller, that is mechanically driven by the prime mover and the stator, which is between the turbine and the impeller so that it can 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 whatever situation and this is where the term stator begins from. In truth, the stator is mounted on an overrunning clutch. This design prevents 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 periodically. Where there is higher than normal torque manipulation is needed, modifications to the modifications have proven to be worthy. Most commonly, these alterations have taken the form of various turbines and stators. Each and every set has been meant to produce differing amounts of torque multiplication. Some instances comprise the Dynaflow that utilizes a five element converter to be able to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Different automobile converters include a lock-up clutch to be able to reduce heat and to enhance the cruising power and transmission effectiveness, even if 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 related with fluid drive.