

Torque Converters for Forklift

Torque Converter for Forklift - A torque converter in modern usage, is commonly a fluid coupling that is used so as to transfer rotating power from a prime mover, like for instance an internal combustion engine or an electrical motor, to a rotating driven load. Same as 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 can provide the equivalent of a reduction gear by being able to multiply torque if there is a significant difference between input and output rotational speed.

The most popular type of torque converter used in car transmissions is the fluid coupling kind. In the 1920s there was likewise the Constantinesco or likewise known as pendulum-based torque converter. There are other mechanical designs utilized for constantly changeable transmissions that could multiply torque. Like for instance, the Variomatic is one version that has expanding pulleys and a belt drive.

The 2 element drive fluid coupling cannot multiply torque. Torque converters have an component referred to as a stator. This changes the drive's characteristics throughout times of high slippage and generates an increase in torque output.

There are at least three rotating elements inside a torque converter: the turbine, that 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 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 whatever situation and this is where the word stator originates 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 alterations that have been incorporated periodically. Where there is higher than normal torque manipulation is required, adjustments to the modifications have proven to be worthy. Most commonly, these adjustments have taken the form of various turbines and stators. Each set has been meant to generate differing amounts of torque multiplication. Some instances include the Dynaflo which utilizes a five element converter in order to generate the wide range of torque multiplication required to propel a heavy vehicle.

Although it is not strictly a component of classic torque converter design, different automotive converters include a lock-up clutch to lessen heat and in order to improve 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 associated with fluid drive.