Torque Converters for Forklift

Torque Converter for Forklifts - A torque converter is a fluid coupling which is utilized in order to transfer rotating power from a prime mover, which 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 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 when there is a considerable difference between input and output rotational speed.

The most popular kind of torque converter utilized in car transmissions is the fluid coupling unit. In the 1920s there was even the Constantinesco or otherwise known as pendulum-based torque converter. There are other mechanical designs for continuously changeable transmissions which could multiply torque. For example, the Variomatic is one type that has expanding pulleys and a belt drive.

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

There are a at least three rotating elements within a torque converter: the turbine, that drives the load, the impeller, that 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. Normally, the design of the torque converter dictates that the stator be prevented from rotating under whichever condition and this is where the word stator originates from. Actually, 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 adjustments that have been integrated sometimes. Where there is higher than normal torque manipulation is required, changes to the modifications have proven to be worthy. Most commonly, these modifications have taken the form of multiple turbines and stators. Every set has been designed to generate differing amounts of torque multiplication. Some examples include the Dynaflow which uses a five element converter to be able to produce the wide range of torque multiplication required to propel a heavy vehicle.

Different auto converters consist of a lock-up clutch so as to reduce heat and so as to enhance the cruising power and transmission efficiency, although 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 that eliminates losses associated with fluid drive.