Forklift Torque Converters

Forklift Torque Converter - A torque converter is a fluid coupling that is used to be able to transfer rotating power from a prime mover, which is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is same as a basic fluid coupling to take the place of a mechanized clutch. This allows 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 substantial difference between input and output rotational speed.

The most popular type of torque converter utilized in automobile transmissions is the fluid coupling type. During the 1920s there was also the Constantinesco or pendulum-based torque converter. There are different mechanical designs utilized for always changeable transmissions that could multiply torque. Like for instance, the Variomatic is one type which has a belt drive and expanding pulleys.

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an component referred to as a stator. This changes the drive's characteristics all through times of high slippage and generates an increase in torque output.

There are a at least three rotating elements inside a torque converter: the turbine, that drives the load, the impeller, which is mechanically driven by the prime mover and the stator, that is between the impeller and the turbine so that it can change 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 whichever condition and this is where the term stator starts from. In truth, the stator is mounted on an overrunning clutch. This particular 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 adjustments which have been integrated 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 many turbines and stators. Each set has been meant to produce differing amounts of torque multiplication. Several examples include the Dynaflow which utilizes a five element converter to be able to produce the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Various auto converters comprise a lock-up clutch to be able to lessen heat and to improve the cruising power and transmission efficiency, 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 which eliminates losses connected with fluid drive.