Forklift Torque Converters

Torque Converter for Forklifts - A torque converter in modern usage, is commonly a fluid coupling which is utilized to transfer rotating power from a prime mover, for instance an internal combustion engine or an electrical motor, to a rotating driven load. Like a basic fluid coupling, the torque converter takes the place of a mechanized clutch. This allows 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 when there is a substantial difference between output and input rotational speed.

The most common kind of torque converter used in automobile transmissions is the fluid coupling unit. During the 1920s there was also the Constantinesco or pendulum-based torque converter. There are different mechanical designs for continuously variable transmissions that can multiply torque. Like for example, the Variomatic is one version which has expanding pulleys and a belt drive.

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

Inside a torque converter, there are a minimum of three rotating elements: the turbine, so as to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator 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 whichever condition and this is where the term stator begins from. In reality, 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 enabling forward rotation.

In the three element design there have been alterations that have been incorporated at times. Where there is higher than normal torque manipulation is needed, alterations to the modifications have proven to be worthy. Most commonly, these modifications have taken the form of various turbines and stators. Each and every set has been intended to produce differing amounts of torque multiplication. Several examples consist of the Dynaflow that utilizes a five element converter so as to produce the wide range of torque multiplication needed to propel a heavy vehicle.

Various auto converters include a lock-up clutch to be able to lessen heat and in order to enhance the cruising power and transmission efficiency, even if it is not strictly part of the torque converter design. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical which eliminates losses associated with fluid drive.