Torque Converters for Forklift

Forklift Torque Converter - A torque converter in modern usage, is commonly a fluid coupling which is used to be able to transfer rotating power from a prime mover, like for instance 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 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 considerable difference between input and output rotational speed.

The fluid coupling model is the most popular kind of torque converter used in automobile transmissions. During the 1920's there were pendulum-based torque or Constantinesco converter. There are different mechanical designs for always changeable transmissions that can multiply torque. For instance, the Variomatic is a version which has a belt drive and expanding pulleys.

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

There are a at least three rotating components within a torque converter: the turbine, which drives the load, the impeller, which 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 stopped from rotating under whatever situation and this is where the word stator begins from. In point of fact, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still allowing forward rotation.

Alterations to the basic three element design have been incorporated sometimes. These adjustments have proven worthy particularly in application where higher than normal torque multiplication is considered necessary. Usually, these adjustments have taken the form of several turbines and stators. Each and every set has been designed to generate differing amounts of torque multiplication. Various examples comprise the Dynaflow which makes use of a five element converter so as to produce the wide range of torque multiplication needed to propel a heavy vehicle.

While it is not strictly a component of classic torque converter design, different automotive converters comprise a lock-up clutch to be able to lessen heat and to improve cruising power transmission effectiveness. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical that eliminates losses connected with fluid drive.