Torque Converters for Forklift

Forklift Torque Converter - A torque converter is a fluid coupling that is utilized so as 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 like 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 substantial difference between input and output rotational speed.

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

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an element referred to as a stator. This changes the drive's characteristics during 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, which drives the load, the impeller, which is mechanically driven by the prime mover and the stator, which 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 stopped from rotating under whatever situation and this is where the term stator begins from. In fact, 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 permitting forward rotation.

In the three element design there have been modifications which have been integrated at times. Where there is higher than normal torque manipulation is considered necessary, changes to the modifications have proven to be worthy. More often than not, these adjustments have taken the form of various turbines and stators. Each set has been intended to produce differing amounts of torque multiplication. Various examples include the Dynaflow that uses a five element converter in order to generate the wide range of torque multiplication needed to propel a heavy vehicle.

Different automobile converters comprise a lock-up clutch to lessen heat and in order to enhance the cruising power and transmission effectiveness, even though it is not strictly component of the torque converter design. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical that eliminates losses associated with fluid drive.