Torque Converter for Forklift

Torque Converters for Forklift - A torque converter is actually a fluid coupling that is used to be able to transfer rotating power from a prime mover, that 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 provide the equivalent of a reduction gear by being able to multiply torque whenever there is a substantial difference between output and input rotational speed.

The fluid coupling unit is actually the most popular type of torque converter used in automobile transmissions. In the 1920's there were pendulum-based torque or also called Constantinesco converter. There are various mechanical designs for always changeable transmissions that could multiply torque. Like for instance, the Variomatic is a version that 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 changes the drive's characteristics during times of high slippage and generates an increase in torque output.

There are a minimum of three rotating components within a torque converter: the turbine, which 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 can change oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be prevented from rotating under whichever situation and this is where the word stator originates from. Actually, 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.

Changes to the basic three element design have been incorporated at times. These adjustments have proven worthy especially in application where higher than normal torque multiplication is required. Usually, these adjustments have taken the form of various stators and turbines. Every set has been meant to generate differing amounts of torque multiplication. Various examples include the Dynaflow which makes use of a five element converter to be able to generate the wide range of torque multiplication required to propel a heavy vehicle.

Different automobile converters include a lock-up clutch to be able to lessen heat and in order to enhance the cruising power and transmission effectiveness, although 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 related with fluid drive.