Torque Converter for Forklift

Torque Converter for Forklift - A torque converter in modern usage, is normally a fluid coupling which is utilized so as to transfer rotating power from a prime mover, for example 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 enables 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 if there is a substantial difference between input and output rotational speed.

The fluid coupling kind is actually the most popular kind of torque converter used in car transmissions. In the 1920's there were pendulum-based torque or likewise called Constantinesco converter. There are various mechanical designs used for always changeable transmissions which could multiply torque. Like for instance, the Variomatic is a kind that has a belt drive and expanding pulleys.

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

There are a at least three rotating components inside 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 prevented from rotating under whichever situation and this is where the word stator starts from. In point of fact, 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.

Adjustments to the basic three element design have been integrated periodically. These changes have proven worthy particularly in application where higher than normal torque multiplication is needed. More often than not, these alterations have taken the form of various stators and turbines. Each and every set has been meant to generate differing amounts of torque multiplication. Some examples include the Dynaflow which uses a five element converter so as to produce the wide range of torque multiplication considered necessary to propel a heavy vehicle.

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